MOBILE PLUS EXPRESSWAYS TRAVEL ASSISTANT SYSTEM
(M-PEx)

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UNIVERSITI UTARA MALAYSIA
2009
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ABSTRACT

Most frequent PLUS Expressways users found it was difficult for them to access point-of-need information (e.g. toll fare, RSA, Touch ‘n Go and etc.) while travelling on the expressways. Currently, the only way to do so was through the web based application. Thus, the purpose of this study is to develop a mobile application, Mobile PLUS Expressways Travel Assistant System (M-PEX) that will be able to assist PLUS Expressways users by providing on the spot information. M-PEX will focus on five main functions which are toll fare calculation, travel duration calculation, facilities, services provided by PLUS and PLUS user guide. M-PEX was developed using Rational Unified Process (RUP) methodology. A user acceptance testing and evaluation has been performed to evaluate the user’s acceptance of M-PEX. The results of the testing show high reliability of M-PEX’s ability to assist user by providing on the spot information. They also show some interesting differences in user response between the users who owns transportation and users who does not owns transportation, due to differences in the frequency of using PLUS Expressways.
ACKNOWLEDGEMENT

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Appendix B Map of PLUS ................................................................. 61
Appendix C Questionnaire .............................................................. 62
Appendix D Use Case Specification .................................................. 65
Appendix E Sequence Diagram ....................................................... 74
Appendix F Collaboration Diagram .................................................. 88
Appendix G Chart ........................................................................... 101
Appendix H User Manual ................................................................. 102
Appendix I Miscellaneous ................................................................ 124

LIST OF FIGURE (S)

Figure 1 M-PEX Network of Expressways ........................................ 5
Figure 2 J2ME Configurations and Profiles (White, 2001) .................. 9
Figure 3 Rational Unified Process (RUP) phases ................................ 14
Figure 4 M-PEX Use Case Diagram ................................................ 21
Figure 5 M-PEX Class Diagram ....................................................... 22
Figure 6 Screen of M-PEX running on Sony Ericsson W810i Emulator 26
Figure 7 Screen from the real implementation of M-PEX on Sony Ericsson W810i mobile phone .................................................. 27
Figure 8 Screen from the test of toll fare calculation using Sony Ericsson W810i ....... 29
Figure 9 M-PEX screen showing the main menu .............................. 30
Figure 10 Total respondents for each category ................................. 37
Figure 11 M-PEX End-User Acceptance Evaluation Key Factors ........ 43
Figure 12 Perceive Usefulness Data Analysis .................................. 44
Figure 13 Ease of Use Data Analysis ............................................. 45
Figure 14 User Satisfaction Data Analysis ...................................... 46
Figure 15 Reliability Data Analysis ............................................... 47
Figure 16 Mobility Data Analysis .................................................. 48
Figure 17 Data analysis for all key factors ..................................... 51
LIST OF TABLE (S)

Table 1 List of Expressways covered by M-PEX............................................................ 5
Table 2 Sony Ericsson W810i Technical Specifications ............................................... 24
Table 3 M-PEX Functions and Description .................................................................. 31
Table 4 Statistics of Questions and Respondents .......................................................... 36
Table 5 Percentage of strongly agree of each category for each of the key factor......... 51

LIST OF ABBREVIATION (S)

<table>
<thead>
<tr>
<th>ABBREVIATIONS</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLUS</td>
<td>North South Highway Project</td>
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<tr>
<td>M-PEX</td>
<td>Mobile PLUS Expressways Travel Assistant</td>
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<td>RUP</td>
<td>Rational Unified Process</td>
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<td>UML</td>
<td>Unified Modelling Language</td>
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<td>CAS</td>
<td>College of Arts and Sciences</td>
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<tr>
<td>ELITE</td>
<td>Middle Link Expressway</td>
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<td>LINK</td>
<td>Second Link Highway</td>
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<td>KLBK</td>
<td>Butterworth-Kulim Expressway</td>
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<td>RSA</td>
<td>Rest and Service Area</td>
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<td>OBR</td>
<td>Overhead Bridge Restaurant</td>
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<tr>
<td>CSC</td>
<td>Customer Services Centre</td>
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<td>J2ME</td>
<td>Java 2 Micro Edition</td>
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<td>NKVE</td>
<td>New Klang Valley Epressway</td>
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<td>FHR2</td>
<td>Federal Highway Route 2</td>
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<tr>
<td>SPDH</td>
<td>Seremban Port Dickson Highway</td>
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<td>SDLC</td>
<td>System Development Life Cycle</td>
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<td>ABBREVIATIONS</td>
<td>TERM</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
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<td>CLDC</td>
<td>Connected Limited Device Configuration</td>
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<td>MIDP</td>
<td>Mobile Information Device Profile</td>
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<td>SE</td>
<td>Sony Ericsson</td>
</tr>
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<td>JP-6</td>
<td>Java Platform 6</td>
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<td>IDE</td>
<td>Integrated Development Environment</td>
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<td>SDK</td>
<td>Software Development Kit</td>
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<td>CHIN</td>
<td>Canadian Heritage Information Network</td>
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<td>WAP</td>
<td>Wireless Application Protocol</td>
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<td>JAR</td>
<td>Java Archive File</td>
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<td>JAD</td>
<td>Java Application Descriptor</td>
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<tr>
<td>KMPH</td>
<td>Kilometre Per Hour</td>
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<td>ATM</td>
<td>Automatic Taylor Machine</td>
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<td>T’nG</td>
<td>Touch n Go</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<td>ICT</td>
<td>Information Communication Technology</td>
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CHAPTER 1
INTRODUCTION

1.1 Overview

Today’s people are living in a more technical world than ever, a world that to a greater extent consists of surroundings and objects created by mankind (Edstrom & Rosberg, 2003). In this technical world the use of information technology is of significant importance (Edstrom & Rosberg, 2003). Recent advancement in mobile and wireless technology has helped to improve many activities such as services (Siau & Shen, 2003), facilities and commerce (Siau, Lim, & Shen, 2001; Krogstie, Lyttinen, Opdahl, Pernici, Siau & Smolander, 2003; Galanxhi-Janaqi & Nah, 2004). Mobile technology is strategic to many organizations and activities (Nah, Siau & Sheng, 2005; Sheng, Nah & Siau, 2005).

While the world is becoming more technical the people that populate it become more mobile. Today’s people travel longer distance than ever, people’s work situations are more challengeable than they used to be and we seem to be an on our way at all times. People are on the move, both at work and otherwise. At most workplaces of today, people face situations in which they must be mobile in carrying out ordinary tasks (Krisoffersen & Ljungberg, 1999). This increased mobility among people in our information society increases the need of being able to access information independent of location (Dahlbom & Ljungberg, 1999). One way of accessing necessary information when being mobile is to use Mobile Internet services. Mobile application works closely with the client. It can become a wireless or not wireless environment.

Mobile application that was developed is an application that is related to Projek Lebuhraya Utara-Selatan (PLUS) expressways. Today PLUS is recognized as a major service provider in the Malaysian transportation industry, having successful undertaken the implementation of the single largest privatization project in the country. PLUS Expressways is involved in investment holding and the provision of expressway
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REFERENCES


