

Pocket PC Users Community Web Site

by

Mr. Wasuvat Khamhomkul

A Final Report of the Three-Credit Course IC 6997 E-Commerce Practicum

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Internet and E-Commerce Technology
Assumption University



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Project Title

Pocket PC users Community website

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Academic Year

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The Graduate School of Assumption University has approved this final report of the three-credit course, IC 6997 E-Commerce Practicum, submitted in partial fulfillment of the requirements for degree of Master of Science in Internet and E-Commerce Technology.

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November 2004

ABSTRACT

This project provides Pocket PC users community website for Pocket PC users. This website will provide news, Pocket PC specification, software download site and webboard for discussion in which one can find information about Pocket PC, look for specific software and ask or answer question about Pocket PC or problem with other users in webboard. So this site will be community web for Pocket PC users, which gather all of Pocket PC information, Software information, Software download links, webboard presented to Pocket PC users who need this service. It will be very useful to new Pocket PC user and will increase new people to use Pocket PC in business or education.

This website is created for any Pocket PC user to find information about Pocket PC, and download software for Pocket PC or using webboard for discussion with other users. This means all of service on this site is free but benefit to users will generate some income to our website such as banner advertisement, space for message advertisement and Pocket PC advertisement from manufacturer or retailer store.

ACKNOWLEDGEMENT

Some people have made contributions to this project. The writer would like to acknowledge their effort and thank them for their contributions.

The author would like to thank Rear Admiral Prasart Srihadung, my project advisor, for his valuable suggestions and advice given in to preparation of this project

The author extend our sincere thanks to my former boss Mr. Jakkrit Nobpakun, Editor from shopping computer magazine for his information and knowledge about Pocket PC technology provide to me while carrying out the data collection for my project.

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I. INTRODUCTION

1.1 Background of the Project

Today, personal computers have been developed to be faster processing and smaller. Pocket PC is a new kind of handheld computer device that is developed for people that needs small computer device, which can be carried and used anywhere.

In order to provide good service for Pocket PC users, the new Pocket PC is smaller, easy to use, have a lot of storage device and can connect to the Internet. These enable many people to use Pocket PC to do a lot of work but it also creates new problem. Some users don't know to use it properly or fix it when it has problem, they usually look for the answer on Internet such as webboard, forum or FAQ but it doesn't solve their problem. The important problem of Pocket PC users today is there is some software and upgrade to download to their Pocket PC but they don't know what to use or what is the best and some software is free but some software isn't unlike Palm OS which have many freeware for their palm OS.

Finally, we decide to provide community website for Pocket PC users. This website will provide news, Pocket PC specification, software download site and webboard for discussion. This website has free services. So many Pocket PC users are free to find information about Pocket PC, look for specific software and ask or answer question with other Pocket PC users in webboard. So this site will be community web for Pocket PC users where they can find information, and talk to other users.

1.2 Objectives of the Project

(1) The project objective is to make community web site for Pocket PC users.

We would like to have some website on the Internet, where some Pocket PC users can find information, software, news update and discussion with other users

(2) Providing information about important update in Pocket PC technology.

Some users need to find information about Pocket PC for making decision before buy it. They can find and check some Pocket PC specification in our website

(3) Providing portal link for download and update software for Pocket PC.

Our website has software download links and links to other Pocket PC website for users who need to download software or find information on other website

(4) Providing webboard for discussion and solving problem.

Some Pocket PC users can use our webboard for discussion with other users and can ask some question or solve problem by asking other user on webboard.

1.3 Scope of the Project

This is Pocket PC community web site. It will have new or update information in Pocket PC technology, popular Pocket PC in market including its specification, links for find information or download software and last webboard for discussion

1.4 Deliverable

1) Prototype website

Prototype website will show sample of website design and interface. It also includes some real information, software update, links and sample of webboard that can be used for discussion in website.

2) Final Report

It has all details and information about this project including sample picture of website interface and information in website.

1.5 Project Plan

Project plan can be implemented in 2 months. (See Figure 1.1.)



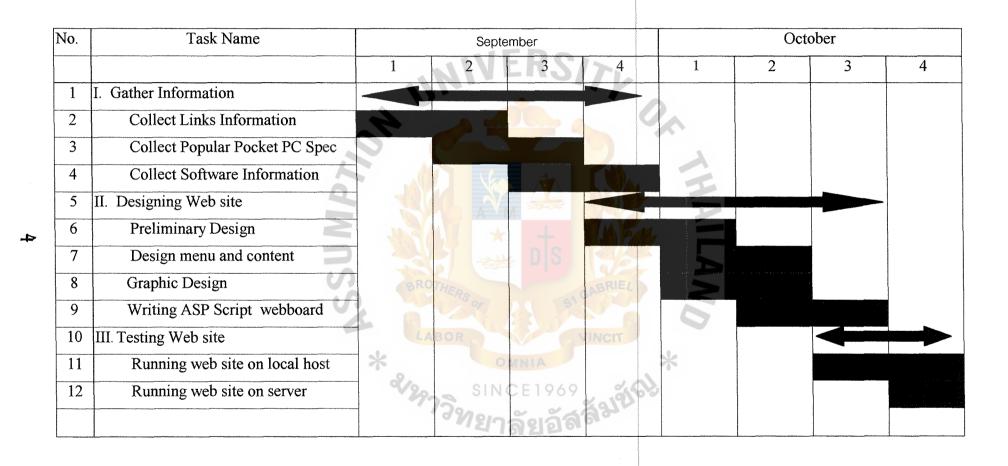


Figure 1.1. Project Plan.

II. PRODUCT REVIEW

Pocket PCs are arguably the most advanced handheld device available today. With fast, low-power processors (available up to 400Mhz), brilliant color screens, wireless communication features, nearly endless add-on options, and the powerful Pocket PC operating system from Microsoft, the Pocket PC is your mobile productivity solution.

In our website, we have Pocket PC information section for any users who want to know specification of Pocket PC. However, there are many Pocket PC, in the market, so we choose only 7 brands, which are interesting and popular among Pocket PC users.

2.1 HP iPAO Pocket PC

The iPAQ Pocket PCs are likely the most popular and well known of all Pockets PC handheld. The iPAQ 3600 series was introduced as one of the first Pocket PCs in April of 2000. Compaq, and now HP, have updated the iPAQ line with the follow-up 3700, 3800 and 3900 series and now with the new 1000, 2200 and 4000 & 6000 series, which all ship with Windows Mobile 2003 or 2003 SE installed.

(1) iPAQ 1945 Pocket PC

The iPAQ 1945 (also sold as the 1940) is the first in a line of successors to the 1910. Identical to the 1910 in appearance, the 1945's improvement is all under the hood. First, a 266MHz Samsung processor has replaced the 1910's rather slow processor. This ARM-based chip is fast and has excellent power management abilities. Other upgrades include onboard Bluetooth, a Secure Digital card slot with SDIO support, and the new Windows Mobile 2003 for Pocket PC operating system.

(2) iPAQ 2215 Pocket PC

The iPAQ 2200 series is HP's second departure from the traditional iPAQ design originally used by Compaq. The iPAQ 2215 is a midrange Pocket PC that falls somewhere between the basic functions of the iPAQ 1900 series and the feature-packed 5000 series. Weighing just under 5.5 ounces, the 2215 (also sold as the 2210) is light enough to be truly pocketable and easy to use; at .63 inches thick, it's just .13 inches thicker than the ultra-thin 1900 series. The 2215 also have dual expansion slots, both CompactFlash and Secure Digital.

(3) iPAQ rx3715 Pocket PC

For the first time in years, HP will be releasing an iPAQ 3000 series Pocket PC. One of these new 3000 Series handheld is the rx3715. The most advanced version of the rx3000 series, the iPAQ rx3715 is powered by a 400MHz Samsung ARM-based processor and has an onboard 1.3 MegaPixel digital camera, integrated 802.11b Wi-Fi and Bluetooth wireless technologies, and over 150MB of storage space available.

(4) iPAQ 4355 Pocket PC

In late 2003, HP released 2 new iPAQ Pocket PCs, the iPAQ 4355 and the iPAQ 4155. The iPAQ 4355 represents the third major departure from the foundation iPAQ design first released in 2000. The iPAQ 4355 is the first iPAQ to feature an onboard thumb keyboard, which is also, backlit. Powered by a 400MHz PXA255 XScale processor, the unit has 64MB of RAM and both Bluetooth and 802.11b Wi-Fi onboard.

(5) iPAQ 5555 Pocket PC

An update to the iPAQ 5455, the iPAQ 5555 features the new 400MHz PXA255 XScale processor with a 200MHz system bus. This doubles the rate of data flow between the processor and the system memory and increases performance considerably over past XScale units. Other updates include the new Pocket PC 2003 OS - Windows Mobile 2003 for Pocket PC - and 128 MB of RAM. The iPAQ 5555's myriad features make it the most advanced Pocket PC available today.

(6) iPAQ h6315 Pocket PC

After years of rumors, HP has released its first cellular wireless iPAQ Pocket PC. The iPAQ 6315, or h6315, is a Quad-Band GSM/GPRS device, capable of operating at 850, 900, 1800 or 1900MHz, making it compatible with wireless service providers all over the world. In addition to GSM/GPRS, the iPAQ 6300 series also features onboard Wi-Fi and Bluetooth, making it the first Pocket PC to incorporate all three wireless standards.

2.2 Toshiba Pocket PC

The Toshiba Pocket PC isn't popular like HP iPAQ but they have a good design and new technology in their Pocket PC. Many users like to use their Pocket PC because it's slim design and has a lot of features.

(1) Toshiba e400/e405 Pocket PC

Along with the impressive e805 Pocket PC, Toshiba has also released a new mid-range Pocket PC, the e405 (also sold as the e400). It features a 300MHz XScale processor and 64MB of RAM. Several features set the e405 apart. Along with ViewSonic's V35, the e405 is the thinnest Pocket

PC on the market at 0.4 inches thick. The e405 can also act as a USB host with an optional cable. The e405 and e805 both feature Voice Command software as well.

(2) Toshiba e755 Pocket PC

The Toshiba e755 was the successor to the popular high-end e740 Pocket PC. Practically identical to the e740 in appearance, the e755 Pocket PC (also sold as the e750) was one of the first Pocket PCs to use the XScale PXA255 processor. The PXA255 doubled the bus speed of the first-generation PXA250 XScale processors by running at 200MHz. Also added to the e755 was a transreflective screen, which became the standard in screen quality for PDAs. The e755 has onboard 802.11b WLAN as well.

(3) Toshiba e805 Pocket PC

Toshiba's new e805 Pocket PC now holds the title of "Most Advanced Pocket PC" and features the largest screen of any Pocket PC on the market (other than the little known e550G). Powered by a 400MHz PXA263 XScale processor, the e805 includes 128MB of RAM, a 32MB ROM and an additional 32MB of flash ROM memory for a non-volatile file store. The e805 also boasts onboard 802.11b Wi-Fi, CompactFlash and Secure Digital slots. An integrated ATI Graphics Controller rounds out this high-end list of features with 2MB of onboard video memory.

2.3 Asus Pocket PC

The Asus pocket PC is new in this business but they have proved they are capable to make a good pocket PC because they have good R&D, the Asus Pocket PC is quite popular in Asia more than Europe and North America.

(1) Asus MyPal A620 Pocket PC

The Asus MyPal A620 is an update to the A600 and is the smallest Pocket PC available with an onboard CompactFlash slot. Running Pocket PC 2003, the A620 is powered by the Intel PXA255 400 MHz processor and can play video at more than 60 frames per second. The 3.5-inch touch-sensitive LCD displays 16-bit color in 240 x 320 resolution and supports a full spectrum of multimedia applications. Smart Keeper technology automatically backs up existing system status when power is running low.

2.4 ViewSonic Pocket PC

The ViewSonic Pocket PC focuses on low-end users or new users, who want cheap and compact Pocket PC. Most of technology in VeiwSonic Pocket PC comes from Toshiba but to reduce cost, they use medium speed processor and reduce memory.

(1) V35 Pocket PC

ViewSonic, a longtime retailer of computer monitors and peripherals, entered the Pocket PC market with the V35. The V35 was offered as a "budget" Pocket PC, powered by the 300MHz XScale Processor. While the V35 features 64MB of RAM, only 36MB of that 64 are user accessible.

2.5 Dell Pocket PC

The Dell Company has a great reputation in desktop personal computer, and they decide to enter Pocket PC market. Dell Company is still testing their product on this market so there is a few Dell Pockets PC on retail store. However, Dell Pocket PC proved to users that their Pocket PC has well design and many features.

(1) Dell Axim X3 Pocket PC

After almost a year after its first Pocket PC offering, Dell released its second Pocket PC Series, the Axim X3. Available in three different

configurations, the X3 took Dell handheld to the next level in both price and performance. The Dell Axim X3 Advanced features a 400MHz XScale processor, 64MB of RAM and a 64MB ROM. It features many of the same specifications of the Axim X5 Advanced. What has changed is the form factor. Weighing over two ounces less than the X5 series, the X3 is just .59" thick and is almost a half an inch shorter.

2.6 Siemens Pocket PC Phone

The Siemens Company is leading in Mobile Phone industry and their Pocket PC Phone is a virtual twin of T-Mobile's Pocket PC Phone.

(1) Siemens SX56 Pocket PC Phone

The SX56 Pocket PC Phone from Siemens, a virtual twin of T-Mobile's Pocket PC Phone, was sold by AT&T Wireless on 2003. Running Pocket PC 2002 Phone Edition, the SX56 was the first Pocket PC/Phone hybrid working on the existing AT&T wireless network. The SX56 is now in limited distribution.

2.7 Samsung Pocket PC Phone

Samsung, longtime manufacturer of electronic devices and wireless phones, has released its first Pocket PC Phone.

(1) Samsung i700 Pocket PC Phone

The SPH-i700, The i700 runs Pocket PC 2002 Phone Edition and will be available for at least two popular CDMA wireless networks in the United States. The i700 also boasts an integrated digital camera, the first Pocket PC to do so. The i700 is now available directly from Verizon Wireless. It is also expected to be sold by Sprint PCS - and work with that company's new high-speed Vision network - but Sprint's release date is not yet known.

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There are also Smartphones, which are cell phones powered by the Windows Mobile Operating System. The Windows Mobile for Smartphones OS is a close cousin of the Pocket PC OS, offering the same familiar look and feel. While a Smartphones isn't as powerful or versatile a Pocket PC, Smartphones are excellent devices for those who want to keep a light pocket without sacrificing basic PIM functionality. We will introduce this area later in future plans.



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III. MARKETING ANALYSIS

3.1 Identifying needs and wants

- (1) Needs
 - (a) People need to search and know information about new technology.
 - (b) People need to know about how to use technology.
 - (c) People need to exchange information technology.
- (2) Wants
 - (a) People want to buy and use new technology such as Pocket PC.
 - (b) People want to be comfortable by using PDA anywhere.
 - (c) People want to know information about Pocket PC before they buy it.
 - (d) People want to know how to use Pocket PC more effectively.
 - (e) People want new software for their Pocket PC and download it.
 - (f) People want to be connecting with Internet and exchange information on Internet with other Pocket PC users.

3.2 Target customer

Our target customer will be any person who wants to buy Pocket PC or people who already own Pocket PC. These people mostly would like to use Pocket PC and eager to find new Pocket PC or software for their Pocket PC.

3.3 Customer Delivered Value (CDV)

- (1) Customer Value
 - (a) Product Value

Our website has Pocket PC information and software download links. Product value is information on the website.

(b) Service Value

Our website offers news, articles and webboard as service value.

Customer can use webboard for discussion with other people or contact us. People, who have some problems can also get some help or suggest in webboard on our website.

(c) Personnel Value

Our website doesn't have personnel value because we don't have any famous or expert person to guarantee our review or information in our website.

(d) Image Value

Our website doesn't have good image value because it is in beginning stage. It takes sometime to get good image value.

(2) Customer Cost

Our website is non-commercial website. Customers don't have to pay for our products and services. This website doesn't have customer cost.

3.4 Competitive SWOT Analysis

(1) Strength

- (a) Most of Pocket PC website has new Pocket PC information and reviews for people who want to buy new Pocket PC.
- (b) Some Pocket PC website has many popular Pocket PCs software for downloads.
- (c) Most of Pocket PC website has news, articles about Pocket PC and links to other Pocket PC website.
- (d) Some Pocket PC website has large webboard for discussion or exchanging information with another Pocket PC users.

(2) Weakness

- (a) Some Pocket PC website don't have Pocket PC accessories information; It should have in the future.
- (b) Some Pocket PC website design wasn't looks good enough to attract more people to visit this website.
- (c) Customer can't buy Pocket PC or software from some Pocket PC website, it isn't convenient for customers who want to buy online.

(3) Opportunity

- (a) Pocket PC, Pocket PC Phone and any handheld PC device become more popular in past 2 years.
- (b) There are many Pocket PC brands and software in the market today.
- (c) Many people would like to use Pocket PC and want to get new information about Pocket PC.
- (d) There are a few Pocket PC community website on the Internet.

(4) Threat

- (a) Hacker, Cracker, Virus and Worms can harm and damage website or software downloads links on the website.
- (b) Many people don't trust to download free or trail software from new website because they concern about some spyware.
- (c) Some people would like to use new small notebook or PDA more than Pocket PC or Pocket PC Phone.
- (d) IT technology is changing rapidly, It is difficult to update and get all news or information to present in small website.

3.5 Cost and Benefit Analysis

(1) Cost

Our website is non-profit website for non-commercial use. It doesn't intend to be commercial website or making profit. However, the website still has basic fixed cost from web hosting cost, domain name cost and maintenance cost.

Table 3.1. Project cost (Baht per year)

Cost items	Year 1	Year 2	Year 3
Web hosting (Windows 2000 Server)	5,000	5,000	4,000
Domain name cost	500	500	300
Maintenance cost	2,000	2,000	2,500
Total Cost	7,500	7,500	6,800

(2) Benefit

Our website has benefit or income from advertisement. It will get more income in the second years, if more people come to visit our website.

Table 3.2. Estimate project income (Baht per year)

Year 1	Year 2	Year 2
3,000	3,500	4,000
200	500	500
0	300	500
3,200	4,300	5,000
	3,000	3,000 3,500 200 500 0 300

(3) Cost VS Benefit

This project will get more income after 1 year's implementation because we predict that more Pocket PC users will come to visit this website. When more users come to our website, this website will have more value then this website will get more advertisement or more income. In 4 years this website will reach payback period.

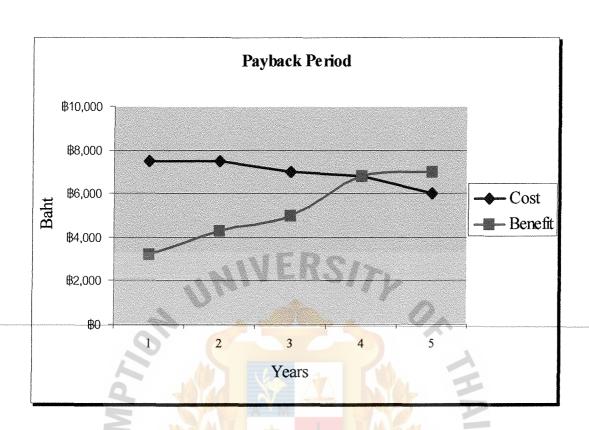


Figure 3.1. Payback period graph.

IV. WEBSITE DEVELOPMENT AND DESIGN

4.1 Concept of the website

This is non-profit website. This website offers news or update information in Pocket PC technology, popular Pocket PC in market including its specification, links for find information or download software and webboard for discussion.

The website domain name is http://www.ppcusers.com. This name is still available for register.

4.2 Layout Design

Website first page uses frame design and has 4 frames. This website uses frame because it is easy to navigate and maintain.

(1) Top frame

Top frame is banner section. It contains logo of the website and some space for banner advertising or sponsor.

(2) Left frame

Left frame is menu section. It is used to navigate on the website. It has 6 menu buttons for go to each page of the website and each button is a flash button. It also has some space for advertising.

- (a) Home button
- (b) Pocket PC button
- (c) Software button
- (d) Webboard button
- (e) Contact us button
- (g) Links button

3) Bottom frame

Bottom frame is footer section. It shows property and rules of website.

It has link to disclaimer, term of use and site map page.

4) Main frame

Main frame is space for user to see information, image and navigate around the website. When users click button on menu section, this frame will show the page that users have selected. In order to see all information in proper site, we recommend viewing our website by setting screen resolution at 1027x768.

4.3 Menu Detail

This website has 6 menus

(1) Index and Articles

This is index page. It will show on the first page when opening website. In this page, there are some introduction messages and interesting articles about Pocket PC technology and marketing movement.

(2) Pocket PCs

This is Pocket PC information page. This page has a list of interesting Pocket PCs in the market.

(3) Software

This is software download page. This page has a list of interesting software for Pocket PC for download. Some software is freeware and some software is only trail version.

(4) Webboard

This is webboard page. This page uses asp and JavaScript languages.

All of users need to register before posting or replying message in webboard.

(5) Contact us

This will open users e-mail program to send e-mail to Webmaster.

(5) Web links

This is links page. This page has a list of interesting Pocket PC websites. Users can click at logo and go to that website immediately.

4.4 Software requirement for designing website

(1) Microsoft Windows 98 second edition with PWS

This is basic operating system with Personal Web Server (PWS) programs. PWS is used for testing or opening ASP on local host or normal PC without connection with Internet host.

(2) Macromedia Dreamweaver UltraDEV 4

This software is used for creating all of pages in website because it is easy to design and create website. It also has ASP and Database tools for creating ASP page.

(3) Adobe PhotoShop 5.5 and Image ready

This software creates all of logos, graphic and small GIF images.

Some JPEG images were taken from other website and use this software to correct and edit it for this website.

(4) Microsoft Visual Basic 6

This software is used for designing and creating webboard in this website. Some source was taken from other website and was edited and changed some details and database.

4.5 Software requirement for uploading and viewing website

(1) Microsoft Windows 2000 Server for web hosting

This website requires web hosting, which can support ASP, JavaScript, MS Access database and has at least 5-MB transfer/bandwidth.

(2) FTP Software

FTP software is used for sending files to the web server.

(3) Microsoft Internet Explorer 5.0 or better

This website needs at least Microsoft Internet Explorer 5.0 to view and run the website. Screen resolution should be 1024x768.

(4) Macromedia Flash plugins

This is basic flash plugins for Microsoft Internet Explorer. It enables IE to view website that uses flash animation or flash image on the web.

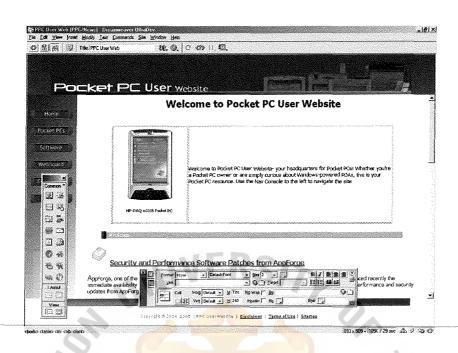


Figure 4.1. Macromedia Dreamweaver UltraDEV Design page.

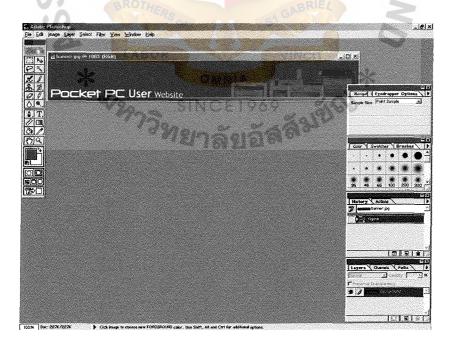


Figure 4.2. Logo of the website designed by Adobe PhotoShop.

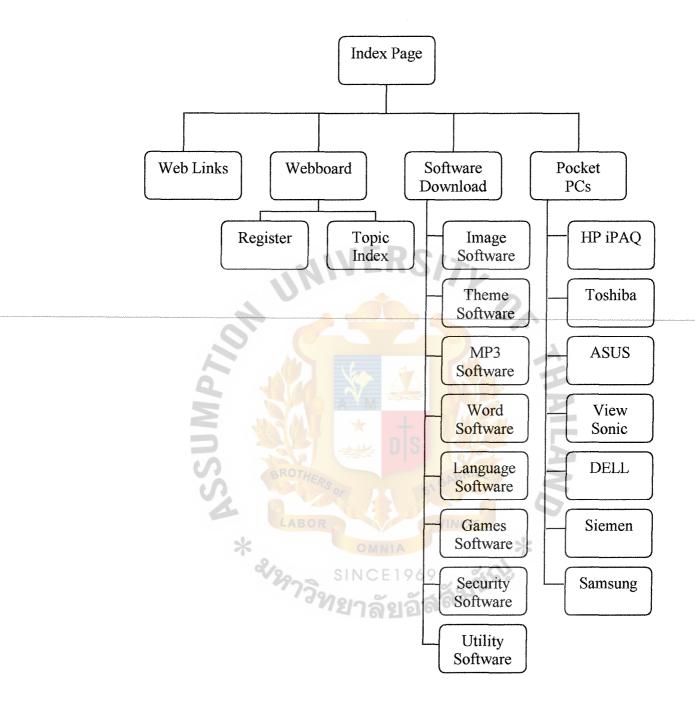


Figure 4.3. Site Map of website.

4.6 Software downloads list

In our website, we have Software download section for any users who want to know information of software for Pocket PC. However, there are many softwares for Pocket PC in the market, so we choose only interesting and popular software. Now we have only 5 category but we will add more category in future plans.

(1) Theme Software

(a) Microsoft Themes for Windows Mobile 2003

Microsoft has made available for download several new themes for the new Windows Mobile 2003 for Pocket PC.

(b) Outer Space Theme Pack

Enhance your Pocket PC with the theme of the cosmos! This is great for anyone who loves the night sky.

(c) Tie Dye Theme Pack

Set of Pocket PC 2002 themes featuring 4 type designs.

(2) Image Viewing Software

(a) PicturePerfect

Enjoy your photographs more than ever with PicturePerfect. This electronic photo album is fun, easy-to-use, has great quality, and is also a fantastic companion to your digital camera. It's perfect for both personal and business use. Not only is PicturePerfect is our choice for best Pocket PC image viewer, but it was also voted reader's choice for "Best Photo Software" by Pocket PC Magazine.

(b) Resco Image Viewer

With Resco Image Viewer, you not only turn your Pocket PC into a digital photo album, but you also have the ability to view

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MPEG1 and MPEG2 video files. Supported image formats include JPG, PNG, TIF, BMP, CFX, PSD, PCX, GIF, RAB, RAW, PGM and PPM. Also, add audio (WAV or MP3) to your photos for a personal touch.

(c) PDAGraphiX2

PDAGraphiX2 is a powerful, flexible and dynamic graphic tool, which easily allows making amazing graphics as soon as tapping once.

(3) Document Software

(a) Adobe Acrobat Reader for Pocket PC v2.0

Adobe Acrobat Reader for Pocket PC v2.0 adds several new features and streamlines PDF views for the Pocket PC! You can now fill and submit forms over a wireless connection, print to a remote printer, view PDF slideshow and read PDF ebooks.

(4) Multimedia Software

(a) Pocket Player 2

Pocket Player 2.0 is an alternative music player for Pocket PC, supporting the latest media player standards and formats. Aiming to satisfy the Pocket PC customers who demand more from a media player, Pocket Player features playback of common audio formats such as MP3, Ogg Vorbis, WMA, and WAV files. A ten-band audio equalizer and preamplifier control is supported, as is a visualization plugins system.

(b) WithMP3

A great MP3 player for Pocket PC! Its features a 10-band graphic equalizer and spectrum analyzer makes your Pocket PC a portable music player.

(c) DiVx Player for Pocket PC

The Pocket DivX Player is a FREE Open Source multifunction video and audio player for the Pocket PC platform that can play DivX, OpenDivX, MPEG-4, MPEG-1 videos and MP3 audio.

(d) Macromedia Flash Player for Pocket PC

Macromedia Flash Player 6 for Pocket PC 2003 is part of the Macromedia Mobile and Devices initiative to make PDA's, phones, televisions, and other consumer electronics accessible to Macromedia Flash developers and publishers.

(e) RealOne Player for Pocket PC

Real Networks brings their RealOne player to Pocket PC. Watch videos, stream audio through a wireless connection, etc.

(f) Windows Media Player 10

Windows Media Player 10 gives you more music and more choices, and for the first time makes it possible to sync high-quality music, video, and photos to the latest portable devices. A perfect upgrade for Pocket PC users.

(5) Language & Translation Software

(a) English - German Talking Phrase Book

If you travel to Germany or any other German speaking country and do not know German this is an essential tool to have. The EnglishGerman talking phrasebook for Pocket PC devices is easier to use than regular dictionary. It is optimized for travelers and - best of all - it is talking in perfect German.

(b) German - English Dictionary

The program "SlovoEd for Pocket PC" is a multilingual dictionary for Pocket PC/Windows CE 3.0 operating system. Advantages of the program are convenient interface, quick translation, and a large number of entries, low memory consumption and possibility to install several language pairs simultaneously. The program runs fast and effectively despite the high data compression ratio.

(c) English - French Talking Dictionary

The ability to pronounce English words in two languages is the distinguishing feature of this software translator. You do not have to check the transcription, merely select the word and with one click make the speech synthesizer pronounce it for you. The synthesizer (Text-to-Speech engine) is based on a new approach to speech synthesis, i.e. on format synthesis, which creates a human vocal tract simulation by modeling sounds of a national language.

(d) English - French Dictionary by SmartLink

English - French (Anglais - Francis) Dictionary by Smartlink includes phrases, derivatives and idioms. Perfect for all skill levels. Features include extremely fast dictionary browsing: select a word in any application and read the definition with a single stylus stroke; expansion cards support; search within the offered definitions; and

more. Easy to use, convenient RoadLingua dictionary shell. English French Dictionary is based on Smartlink database.

(6) Games Software

(a) Bubblets

Possibly the most addictive Pocket PC game available, Bubblets will give you hours of enjoyment. You'll never want to put it down.

(b) Scrabble for Pocket PC

Play SCRABBLE, the world's most popular word game on your Pocket PC! The Handmark SCRABBLE Game for the Pocket PC is designed to play just like the classic board game. It utilizes a selectand-drop tile placement interface, a built-in Official Scrabble Players Dictionary, automatically scores every game and even saves partially completed games to be continued at any time.

(c) Monopoly for Pocket PC

Now you can play the world's most popular property trading game on your Pocket PC device and experience the thrill of owning it all right in the palm of your hand! Buy, sell, rent, and auction property with up to 4 players! Practice your Monopoly skills at any time by playing against up to three computer opponents with 8 different "identities" and playing styles. Or you can mix any combination of real people and computer players in any game.

(d) Racing Days

Racing Days for Pocket PC is the first racing game software developed for Pocket PC that performs real 3D action. It gives you the most thrilling and excitement and draws you into the real racing.

(e) Interstellar Flames

A vast horde of alien battleships is approaching our solar system. Due to maintenance problems only one fighter craft is ready to defend the planet. Fly dangerous missions against huge battlecruisers, dogfight with enemy fighters in asteroid fields and destroy the alien fleet before it enslaves Earth.

(7) Security / Locking Software

(a) PocketLock

Keep your sensitive files safe! PocketLock from Applian lets you password protect individual files or entire folders using powerful encryption technology. And it's easy to use just select a file or folder, enter a password, and your data is safe. It uses ARC 128-bit encryption.

(b) Touch Password Protection

This program will replace the default Password security to the new Password Protection. Then it works like the Pocket PC OS default, restricting access to your Pocket PC both on the device and via ActiveSync connection. Pocket PC 2002 & 2003 Compatible.

(c) PocketPrivacy

PocketPrivacy allows you to manage visibility of your private data on your Pocket PC device. With PocketPrivacy you can hide your personal private data: contacts, tasks, appointments, databases, document files, programs, voice recording files, images, photos, music files, notes, Pocket Word and Pocket Excel files.

(8) Utilities Software

(a) Flash Format

Flash Format is a full featured memory card management utility supporting all ATA and SD compliant storage devices, including Compact Flash Cards, SD cards, MMC and MicroDrives. With Flash Format you can get detailed information and statistics about your storage cards, including physical characteristics (FAT type, sectors, cluster, cylinders, etc.) and analysis of file allocations (slack space). Of course, you can also use it to perform integrity checks, repair allocation errors, and re-format storage cards to original conditions, wherever and whenever you need it.

(b) Space Reclaimer

Every time you use your PDA it gets littered with file fragments and debris you can't see. Temporary files are created by almost every application and unfortunately not every one of them takes care of removing this garbage. Space Reclaimer helps you keep these temp files cleaned out, keeping your Pocket PC running at peak performance and with maximum storage space.

(c) Battery Pack 2004

Battery Pack 2004 is the essential tool for your Pocket PC and without question one of our favorites. Now optimized for Pocket PC 2003, it displays the following information right on your Today screen: remaining battery life in hours and minutes, amount of free storage space on internal memory and storage cards, and backlight

adjustment. It also installs several small utilities to give you more control over your Pocket PC.

(d) ShareIt FTP Pro

Designed for industrial and enterprise applications, ShareIt FTP server for Microsoft Pocket PC delivers a scalable, reliable and easy to use file sharing solution.

4.7 Webboard

Our website has webboard for giving any users. It can be used for discussion, asking question, making a suggestion. This webboard uses ASP and JavaScript languages to create, using Microsoft Access 2000 as database. In order to use our webboard, all users need to agree with our rules and privacy statement before they can register. When users finished registration, they can use webboard until administrator revokes their accounts.

(A) Register

- (1) Agree with Privacy Statement
- (2) Fill the form, All Fields marked with * are required to fill.
- (3) Press submits button, the go back to forum and uses it.

(B) Post topic

- (1) Login first, if not login, you can't post or reply any topic.
- (2) Press purple folder icon to create new topic
- (3) Choose Screen size, format and fonts.
- (4) Type Subject and messages.
- (5) Click post new topic button.

(C) Reply topic

- (1) Login, if not login.
- (2) Click on topic you want to read and reply.
- (3) Click on paper with arrow button to reply that topic.
- (4) Choose Screen size, format and fonts.
- (5) Type messages.
- (6) Click post new reply button.

(D) Search Topic

Unregistered or registered users can use search engine to find topic or key words that they want. This search function is also very easy to use.

(E) Administrative Functions

This tool is for administering webboard control and maintenance. This tool has many options to configure webboard. It has 2 categories option configuration.

(1) Forum Feature Configuration

This option is used for controlling user detail, username filter, and word filter in forum or topic configuration.

(2) Other Configuration Options and Features

This option is used to control database, server configuration and shut down or activates forum.

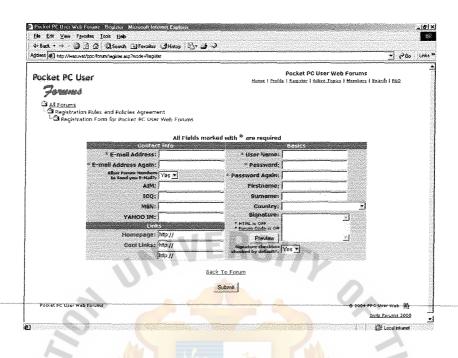


Figure 4.4. Webboard Register page.

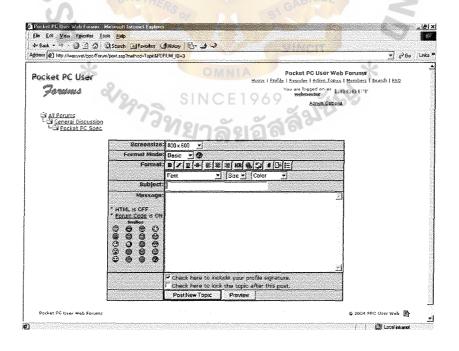


Figure 4.5. Webboard new topic post page.

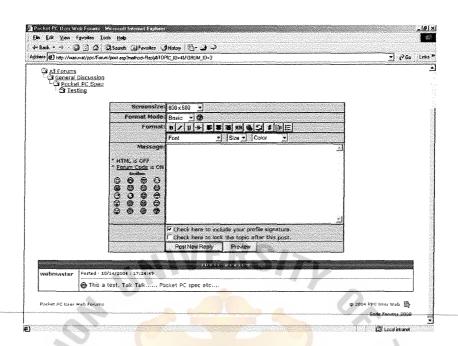


Figure 4.6. Webboard topic reply page.

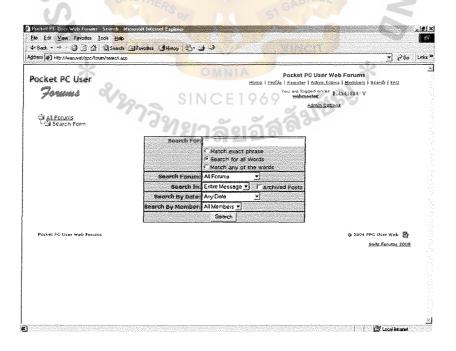


Figure 4.7. Webboard topic search page.

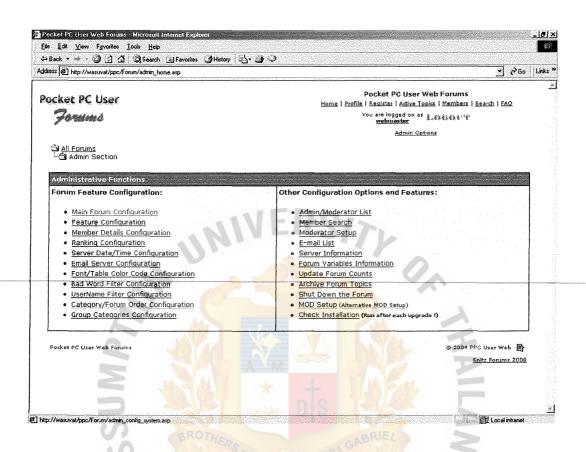


Figure 4.8. Webboard administer functions page.

4.8 Database design

The webboard use Microsoft Access 2000 to design database. There is 4 databases use in this webboard.

(1) Main topic category database

All information about main topic use this database shows all topics category information at first page of the webboard.

(2) Topic database

All information and message use this database when user creates topic in webboard.

(3) Reply database

All information and message use this database when user replies the topic in webboard.

(4) Member database

The register page uses this database. It will store information about member and show detail when user log in.

(See APPENDIX B DATABASE DESIGN for more detail)

4.9 Web links

This page has a list of interesting Pocket PC websites. Users can click at logo and go to that website immediately. Until now we only have a few links to other Pocket PC websites but we will add more links in future plan. This following is the list of all links in our website.

(1) Freeware Pocket PC

FreewarePPC.com - Freeware Pocket PC: the one and only site for downloading freeware files for Pocket PC handheld.

(2) Pocket PC for You

Complete Pocket PC Resource! Pocket PC 2002 themes, games, applications, books, Pocket PCs and accessories.

(3) PocketThemes.com

The number 1 Resource For Pocket PC 2002 Themes.

(4) PocketRocketFX.com

The Pocket PC Entertainment Site.

(5) iPAQabilities

iPAQabilities is an iPAQ Pocket PC enthusiast site featuring news, articles, reviews, rumors, accessories, and more.

(6) Pocket PC Portal

Everything for the Pocket PC Enthusiast! News, tools, tips, tricks and technology to maximize your handheld Pocket PC productivity and play! Software, devices, downloads, ebooks, audio, wireless and accessories for your Windows CE PDA.

(7) Pocket Download

The largest freeware guide for Pocket PC

(8) PDACorps

PocketPCnews contain reviews, articles, discussions forum, free Pocket PC software, and lots more. Updated daily.

(9) PDA Top Soft

PDAtopsoft.com software downloads resource for Palm OS, Windows CE, Pocket PC, RIM, Smartphones, and EPOC Software and Information. Freeware, Shareware and Commercial software is available at PDATopSoft.com.

(10) Microsoft Pocket PC

Microsoft Pocket PC Information Website.



V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

- (1) This website offers free Pocket PC reviews, software downloads and webboard services.
- (2) Our target customer is a new and old Pocket PC or Pocket PC Phone user.

 They can get information, review, software download links and webboard for discussions
- (3) This website was created by Macromedia Dreamweaver UltraDEV 4,

 Adobe PhotoShop, created this website, Microsoft Visual Basic, HTML and

 ASP languages.
- (4) According to cost and benefit analysis, this website value will be increase in 2 years and can get payback period in 4 years.
- (5) This website focuses on Pocket PC and Pocket PC Phone technology and softwares that are used on Pocket PC. It also includes articles about new technology and software for Pocket PC. This website has benefit for all Pocket PC and Pocket PC Phone users. They can use information on the website for making decision to buy new Pocket PC or downloading software for their Pocket PC.
- (6) This website has webboard or forum for all Pocket PC users to discuss with another user. They can ask question by posting topic on webboard and another can answer by replying on webboard. This website will be Pocket PC users on-line community.

- (7) This website use Microsoft Access 2000 Database for webboard. This webboard also create by using ASP. The web hosting of this website must support ASP and database.
- (8) This website has administrator function page, which use to control and manage the webboard.
- (9) This website will become large Pocket PC users community on the web.

 Many Pocket PC users will visit and use this site to find Pocket PC,
 software information and discussion among another Pocket PC users.

 Because Pocket PC is a handheld device, it will be popular in the future and
 many people will use it, instead of carrying laptop or notebook PC.

5.2 Recommendations

- (1) This website can be applied to use in IT business or education, such as IT newspaper or magazine. IT Company or IT shop can use it for contacting and supporting their customer. The education institute can use it for contacting or exchanging information between student and teacher.
- (2) This website must have more information about Pocket PC and Pocket PC Phone or Smart Phone. It will add a review about some Pocket PC for comparisons in the future.
- (3) This website must have more information about Pocket PC accessory and another wireless device which can connect with Pocket PC.
- (4) Software downloads and web links section must be updated regularly to prevent the broken link and add more software for downloading.

(5) This website can increase value of the website by joining into Pocket PC links exchange site. It will use rank or list to measure the number of visitor and how popular the website is. If the website can get on the top of the rank, the value of this website will increase.





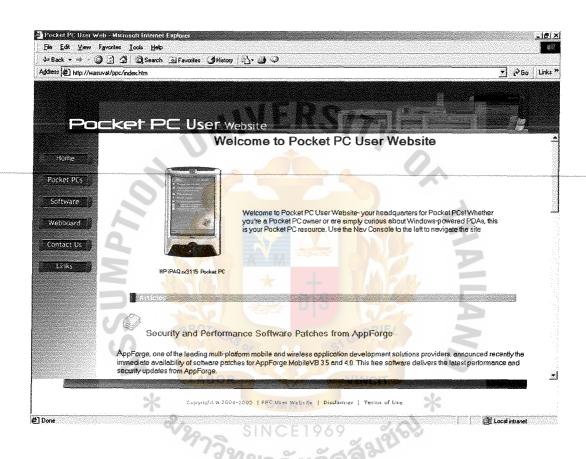


Figure A.1. Website Main Page Design.



Figure A.2. Pocket PC Index Page Design.



Figure A.3. Pocket PC Selection Page Design.

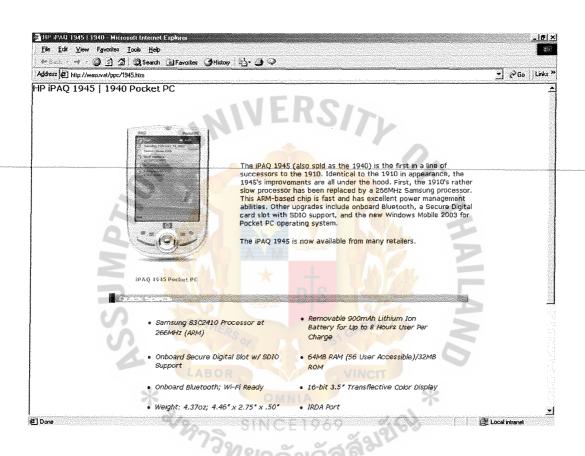


Figure A.4. Pocket PC Information Page Design.

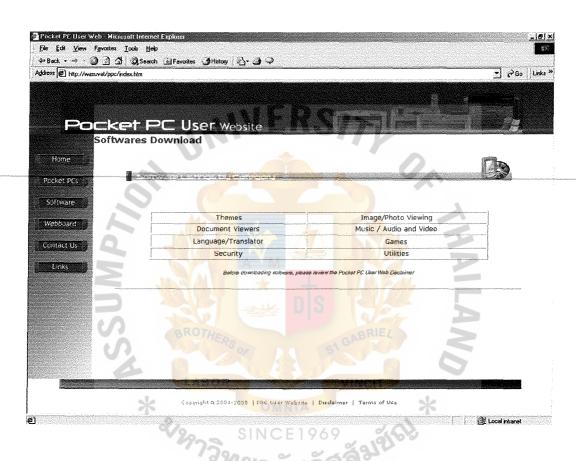


Figure A.5. Software Category Page Design.

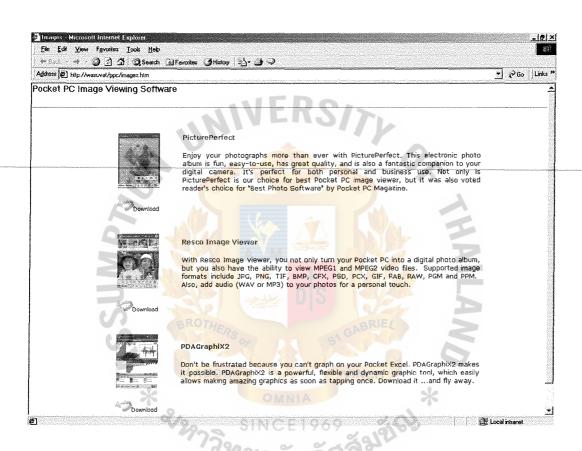


Figure A.6. Software Download Page Design.



Figure A.7. Web Links Page Design.

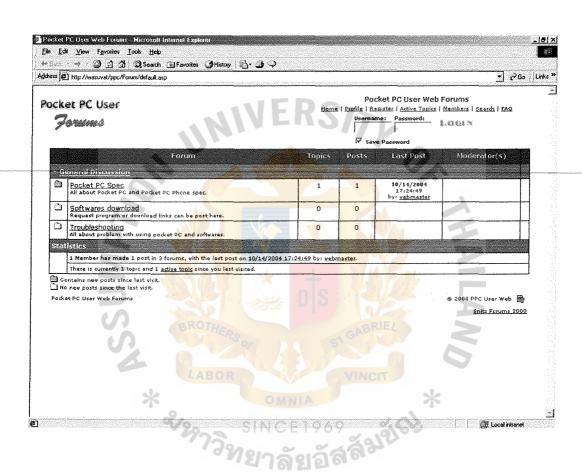


Figure A.8. Webboard Design.

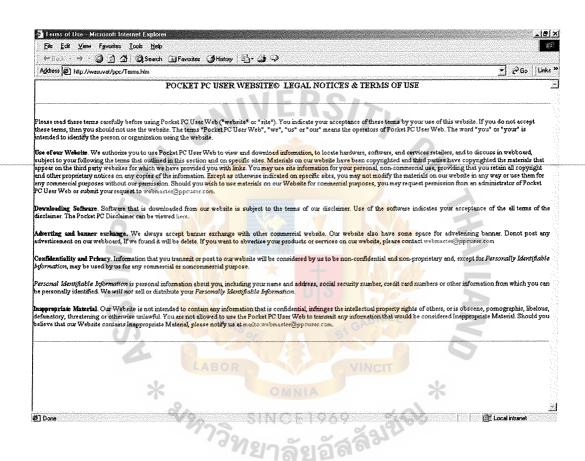


Figure A.9. Terms of Use Page.

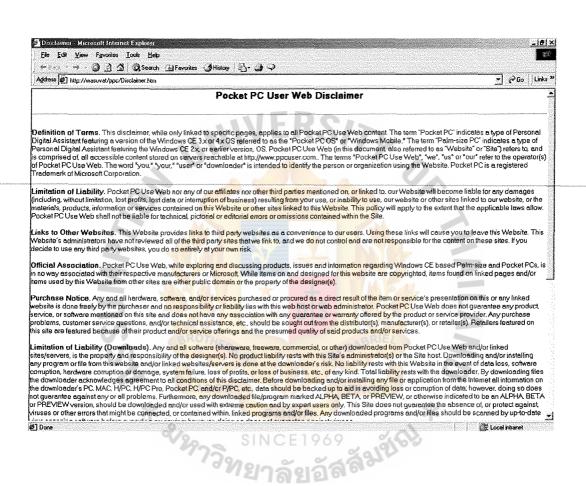


Figure A.10. Disclaimer Page.

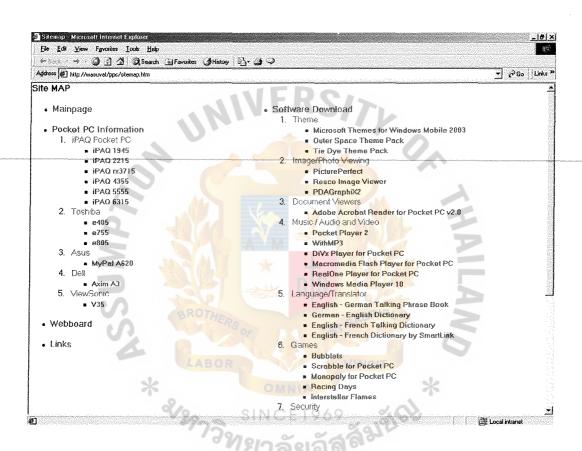


Figure A.11. Site Map Page.



Webboard Database

Table B.1. Main Topic Database Design

Fields	Data Type	Description
CAT_ID	Number	
FORUM_ID	Auto Number	
F_STATUS	Number	
F_MAIL	Number	
F_SUBJECT	Text	
F_DESCRIPTION	Memo	3/>.
F_TOPICS	Text	
F_LAST_POST DATE	Text	
F_LAST_POST_TOPIC_ID	Number	
F_LAST_POST_REPLY_ID	Number	

Table B.2. Topic Database Design

Fields	Data Type	Description
CAT_ID	Number	*
FORUM_ID	Number	9 30
T_STATUS	Number	aã ³¹⁷
T_MAIL	Number	
T_SUBJECT	Text	
T_MESSAGE	Memo	
T_AUTHOR	Number	
T_REPLIES	Number	
T_LAST_POST DATE	Text	
T_DATE	Text	
T_LAST_POST_AUTHOR	Number	
T_LAST_POST_REPLY_ID	Number	

Table B.3. Reply Database Design

Fields	Data Type	Description
CAT_ID	Number	
TOPIC_ID	Number	
REPLY_ID	Number	
R_MAIL	Number	
R_REPLY	Number	
R_DATE	Text	
R_MESSAGE	Memo	
R_AUTHOR	Number	3/>-
R_LAST_EDIT	Number	



Table B.4. Member Database Design

Fields	Data Type	Description
MEMBER_ID	Auto Number	
M_STATUS	Number	
M_NAME	Text	
M_USERNAME	Text	
M_PASSWORD	Text	
M_EMAIL	Text	
M_COUNTRY	Text	
M_HOMEPAGE	Text	3/2-
M_MSN	Text	
M_POSTS	Number	
M_DATE	Text	
M_LASTHEREDATE	Text	
M_LASTPOSTDATE	Text	NE D
M_TITLE	Text	U(0) 2004
M_FIRSTNAME	Text	
M_LASTNAME	Text	ST GABRIEL
M_SEX	Text	Wilhor
M_AGE	Number	*
M_DOB	Text	9 40
M_ADDRESS	Text	aá312

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- 4. http://www.shareconnector.com. This website provide information about software and download links.
- 5. http://www.ppc4you.com. This website provide all information about Pocket PC and specification and software download links.
- 6. http://www.microsoft.com/windowsmobile/pocketpc/default.mspx. This website provide information about Windows CE, Windows Mobile 2002, 2003. It is OS for Pocket PC
- 7. http://www.pocketpccity.com. This website provide news, article and information about Pocket PC specification and software.
- 8. http://www.w3schools.com. This website provide some help to create webpages and html source code.
- 9. http://www.freeasp.com. This website provide asp source code, JavaScript code and webboard template.
- 10. http://forums.snitz.com. This website provide some administer tool for webboard.

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