HandWeb

Internet Web Browser for PalmPilot™

© Copyright 1997 Smartcode Software, Inc. All rights reserved. No part of this documentation may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopying or recording on any information storage and retrieval system, without prior written permission from Smartcode Software, Inc.

HandWeb was designed and engineered by Stephane Bussat and Eric Lavigne, with help from Alexis Martial.

Documentation by Michael Modjeska.

NORTH AMERICA:

Smartcode Software, Inc.
Sorrento Towers
5355 Mira Sorrento Place
Suite 100
San Diego, CA 92121

Phone: +1 (619) 597-7544
Fax: +1 (619) 597-7444
http://www.smartcodesoft.com
E-mail:
pilot-info@smartcodesoft.com

EUROPE:

Smartcode Software, Inc.
c/o Smartcode Technologie, S.A.
Cap Alpha
Avenue de l'Europe, Clapiers
34940 Montpellier, France

Phone: +33 (0) 467 593 092
Fax: +33 (0) 467 593 048
http://www.smartcode.fr
E-mail: pilot-info@smartcode.fr

HandWeb, the HandWeb logo, Smartcode Software and the Smartcode Software logo are trademarks of Smartcode Software, Inc. 3Com and the 3Com logo are registered trademarks, and PalmPilot, Palm OS, HotSync and the PalmPilot logo are trademarks of 3Com Corporation or its subsidiaries. All other company and product names mentioned in this documentation are trademarks or registered trademarks of their respective holders. This is a non-contractual document.

HWB10, MFM-971010

Preface

Put the Internet in the palm of your hand

Congratulations and thank you for choosing HandWeb. With this

compatible computer to navigate through the World Wide Web as easily as if you were using a full-sized desktop machine.

browsing solution. Use it to connect right to the Internet to read your favorite on-line news service, check the stock market, or even to keep

Whatever your specific needs, HandWeb will help you get the information you want when you want it, wherever you go.

Contents

1 Overview 7

What is HandWeb? 7
Supported Internet standards 7
Web protocols 7
Communication protocols 8
Notation conventions in this manual 9

2 Installation 11

System requirements 11
Package contents 11
Installing HandWeb on your PalmPilot 12
Starting HandWeb 13
Product serialization 13

3 Connecting to your ISP 15

Configuring PalmPilot TCP/IP 15
TCP/IP details 17
Connection scripts 18

4 Using HandWeb 19

Quick-start 19
Loading pages 20
Browsing 21
“Hotspots” 23
Accessing password-protected sites 23
Using a Proxy server 24
Saving Web pages as Memos 25
Downloading .PRC files 25
Server setup for preparing downloads 26

5 Using bookmarks 27

The bookmark window 27
Using the bookmark pop-up menu 28
Viewing your bookmarks 28

6 Technical issues.....29

Modem cabling..... 29
HandWeb messages 30
Technical support..... 31
Our support policy..... 31
Contacting technical support..... 31
Registration form..... 32

7 Index.....33

[This page intentionally left blank]

1 Overview

What is HandWeb?

HandWeb is a powerful Web browser designed exclusively for PalmPilot Professional and compatible computers. This application displays the text contents of World Wide Web pages regardless of their graphical appearance, allowing you to gather data from your favorite Internet sites just as you would from a full-sized desktop computer. HandWeb's main features include:

- Direct connections to your Internet Service Provider using the PalmPilot Professional's integrated dialer
- Compatibility with most Web sites (supports HTML 2.0, HTTP 0.9 & 1.0, basic authentication, and automatic redirection)
- Complete navigation buttons
- Customizable folders for organizing your bookmarks
- Copy, paste, and "save as Memo" functions
- The ability to download PalmPilot .PRC files over the Internet

Supported Internet standards

Web protocols

As mentioned above, HandWeb supports HTML 2.0, HTTP 0.9 & 1.0, basic authentication, and redirection. This means that HandWeb can access most of the Web sites it encounters with satisfactory results. However, HandWeb does not yet support certain types of sites and functions. Among these (for now) are Java scripts, Frames, and Forms.

Note Please check our Web site (www.smartcodesoft.com) for status on updates with new features.

Communication protocols

HandWeb uses the PalmPilot's integrated TCP/IP (PPP, SLIP, or CSLIP) to connect to your Internet Service Provider(s) or corporate system via dial-in connections.

The table below gives a summary of the various Internet protocols related to the use of HandWeb:

Term	Description
HTML	*HyperText Markup Language* — HTML is the standard language that is used to define Web pages. HTML codes provide text formatting, hyperlinks (which take you to other locations), and many other advanced features.
HTTP	*HyperText Transport Protocol* — HTTP is the mechanism by which hypertext files move across the Internet between computers. HandWeb is an HTTP client program; you will be connecting to HTTP servers through your service provider.
TCP/IP	*Transmission Control Protocol / Internet Protocol* — TCP/IP is the data transport protocol used on the Internet to allow computers of all kinds to communicate with each other. PPP, SLIP, and CSLIP are forms of TCP/IP specially designed for dialup connections.

Supported protocols

Notation conventions in this manual

If you are already a PalmPilot user, then you should be familiar with the terms used in this manual. Here are a few that we use frequently:

Term or symbol	Meaning
	This is the PalmPilot “Menu” icon, located to the left of the Graffiti writing area
Tap	On a PalmPilot, you “tap” on the touch-sensitive screen with a stylus, just as you would “click” with your mouse in most personal computer software.
Graffiti	Graffiti is the character recognition mechanism used by the PalmPilot to turn your stylus strokes into letters. The standard way to show you what to write is like this: , , and **M** (for “command-M”).
PalmPilot	We use this term to refer to all PalmOS 2 compatible computers (such as 3Com PalmPilot Professional organizers and IBM WorkPad PC Companions)
ISP	Internet Service Provider

[This page intentionally left blank]

2 Installation

System requirements

To run HandWeb you will need:

- A 3Com PalmPilot Professional organizer or compatible computer with around 85-90 Kb of free memory
- A PalmPilot clip-on or other compatible modem
- If you use a modem other than the PalmPilot clip-on, we recommend that you use a certified PalmPilot modem cable
- A Windows or Macintosh computer with a standard PalmPilot cradle connection, HotSync, and Application installer software (only used for copying HandWeb onto your PalmPilot organizer)

Package contents

In this package, you will find:

HandWeb.prc	The HandWeb application to install on your PalmPilot
Readme.txt	General product information
User manual	Complete instructions on how to use HandWeb (this book). The user manual is provided in electronic format on your distribution floppy or electronic download.
Register.txt	Product registration form
License.txt	HandWeb user license

Installing HandWeb on your PalmPilot

IT IS IMPORTANT TO REMOVE OLD (BETA OR DEMO) VERSIONS OF HANDWEB BEFORE INSTALLING THIS FINAL RELEASE. We also recommend that you make a backup of your PalmPilot by running HotSync before installing *any* new software.

HandWeb software operates entirely on your PalmPilot machine. There is no interaction with your desktop computer, except during installation. At that time, you will need to connect your PalmPilot to a PC or Macintosh computer in order to run HotSync and upload the HandWeb program file (with a .PRC extension) to your PalmPilot. The instructions given below apply to both Windows and Macintosh users. To install HandWeb:

1. Copy the file `HandWeb.prc` to your hard disk, or install it directly from your distribution floppy or electronic download directory.

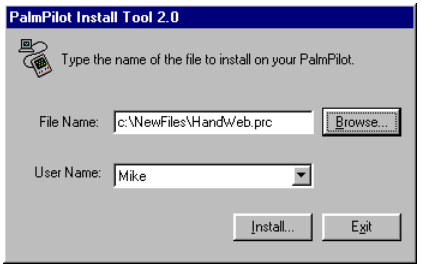
2. Place the PalmPilot in its cradle, and connect the cable to your Windows or Macintosh desktop computer.

3. Start the PalmPilot application installer in your desktop computer.

The PalmPilot application installer on Macintosh is called `InstallApp`

Windows users should run `Instapp.exe`

4. Use the **Browse** button to locate and select the file `HandWeb.prc`:



Click on **Install** and confirm your selection. HandWeb will be copied to your PalmPilot next time you run HotSync.

Lastly, perform a HotSync to load the application onto your organizer:

1. Start the HotSync Manager application in your desktop computer.

2. Press the HotSync button on the PalmPilot cradle to begin file transfer.

Starting HandWeb

Start HandWeb by tapping on the HandWeb icon in your PalmPilot's Applications screen.

Product serialization

The first time you start HandWeb, you will be asked to enter your product's serial number:

Product serialization

Serial numbers are given in the format: 1234-1234567-1234. You must enter the dashes ("-") as well. If you bought an off-the-shelf package, you will find the serial number on the floppy disk. If you purchased an electronic version of HandWeb through an on-line reseller, you should have received a serial number from them via e-mail.

[This page intentionally left blank]

3 Connecting to your ISP

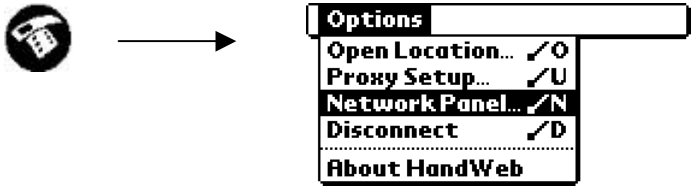
Note If your dialup connection is already correctly configured, you may skip this chapter, and move on to Chapter 4 “Getting started”.

HandWeb is a very intuitive program to use, and in most cases you will not need much help from the User Manual. However, before you can begin using HandWeb at all, you will have to configure your PalmPilot organizer to correctly dial into your Internet Service Provider. HandWeb relies on the PalmPilot’s own TCP/IP software for its Internet dialup connections.

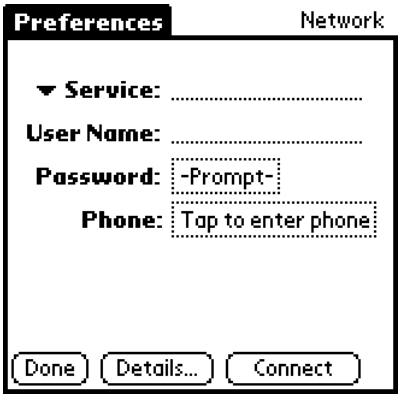
This chapter covers the basics on how to use the PalmPilot’s integrated TCP/IP stack. If you need more details, please consult your PalmPilot Professional user manual.

Configuring PalmPilot TCP/IP

You may access the network panel either through the PalmPilot **Preferences** icon (**Network** option), or from within HandWeb by selecting **Options** ⇒ **Network Panel**:



This opens the PalmPilot network configuration screen as shown here:



Filling in your ISP information

Here is where you will enter the information for your dialup connection. Fill in the fields as follows:

Service This name is for your reference only. You may enter a new service (**Menu** ⇒ **New**), select an existing service by tapping on **Service**, or overwrite a service that you do not intend to use.

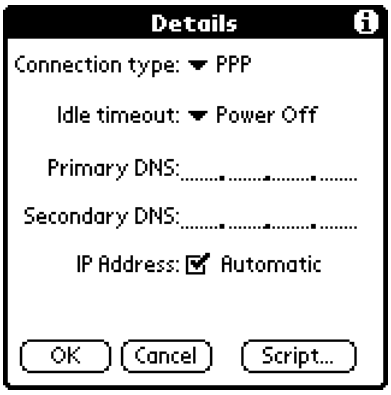
User Name Enter the login name for your account here.

Password Enter you account password here, or leave **Prompt** in order to enter your password manually each time you connect.

Phone Tap here to enter your service provider's access telephone number, and your own calling card information if necessary.

TCP/IP details

Tap on **Details** to setup the specifics of your TCP/IP stack:



TCP/IP stack configuration

Connection type

Here you should choose the TCP/IP protocol (PPP, SLIP, or CSLIP) that your provider uses.

Idle timeout

The idle timeout represents the period of elapsed time after which an unsolicited TCP/IP stack automatically disconnects from a host. In order to avoid unexpected shutdowns, we recommend selecting **Power Off**. Do not set this “Immediate”.

Primary/Secondary DNS

Enter the IP addresses of the Domain Name Server(s) given to you by your ISP. Domain name servers provide resolution of machine *names* to *IP addresses* (for Web servers entered in the format `www.domain.name`). A DNS IP address should be in the form: `44.151.06.15`

Automatic IP address

Most service providers dynamically assign their dial-in subscribers an IP address upon connection. However, if you need to specify a fixed IP address, deselect this checkbox, and enter your IP address in this field.

Connection scripts

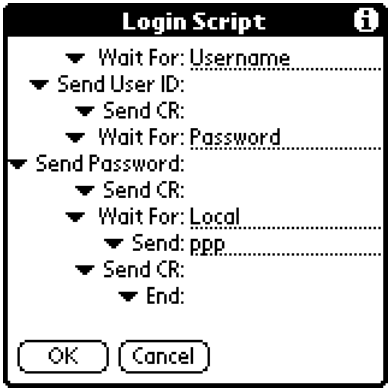
Many service providers do not require connection scripts at all, as the TCP/IP stack gives them your login information that you entered in the main configuration screen as described earlier. When scripts are necessary, ISPs readily provide examples of the connection scripts they require to access their systems. It is important to check with your ISP or system administrator to get the exact details.

Connection scripts execute a series of instructions, such as **Login** and **Password**, instead of requiring you to enter them manually for each connection. They can also pause for a specified length of time, wait for a host machine to send specific character strings, and then respond with pre-determined responses.

For example, here is how a typical Internet Service Provider would give you details on how to connect:

```
expect Username>
Enter your UserID and return
expect Password>
Enter your Password and return
expect Local>
Enter ppp and return
```

The corresponding connection script would look like this:



Sample connection script

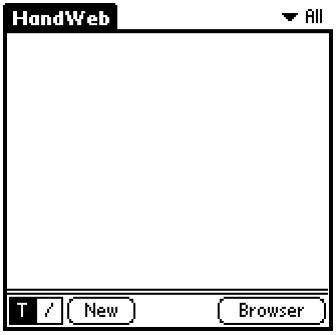
Most connection scripts are similar to the above, though they may present slight variations depending on the host system. You should check with your ISP for the exact connection script, and consult your PalmPilot user manual for more information.

4 Using HandWeb

Quick-start

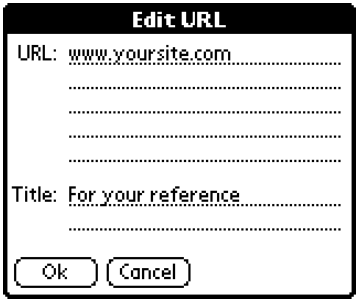
After you have configured and tested your dialup connection (which is best done *independently* of HandWeb), you are ready to browse the Web with your PalmPilot organizer. Follow these steps to begin:

1. Start HandWeb (and enter your serial number if this is the first time that you are running the application). HandWeb automatically opens to the “Bookmarks” window:



The starting point...

2. Tap on **New**, or select **Menu** ⇒ **Open** (Graffiti **O**) and enter the name of the Web site you wish to access, and tap on **Ok**.



Entering Web addresses

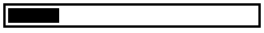
3. If you selected **New** in step 2, then highlight the new entry with your stylus, and select **Open** from the pop-up menu.

4. HandWeb then initiates the dial-up connection process and opens the Web site you specified.

Note HandWeb does not automatically close connections when you are done browsing. While you are connected, a blinking vertical line is displayed in the upper right corner of the screen. If you experience transmission problems, it is best to close the connection (**Options** ⇒ **Disconnect**, or Graffiti **D**) and re-dial.

Loading pages

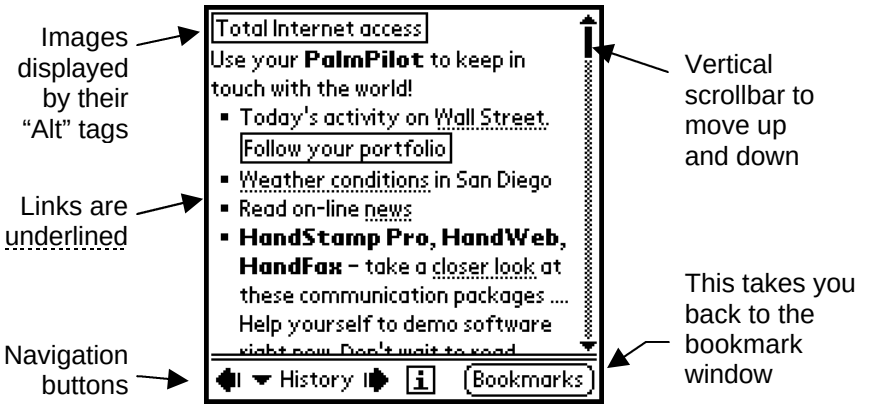
While HandWeb loads Web pages, it displays the progress status at the bottom of the screen. When HandWeb is able to determine the size of the current page, it displays a “classic” status bar like this:



When HandWeb is unable to accurately determine the size of a page it displays a “barbershop” status bar like this:

Browsing

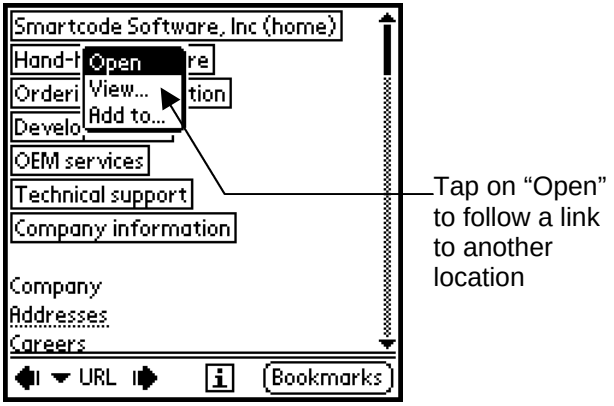
After connecting to your ISP, HandWeb will display the specified Web page as shown here:



HandWeb browser window

Due to the PalmPilot's size and type of screen, HandWeb "simplifies" the Web pages it encounters in order to display them as clearly as possible. As HandWeb is a text-mode browser, you will notice that:

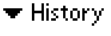
1. Images are shown as boxes containing the graphic's text description (using the HTML "Alt" tag). You may tap directly on the graphic if there is a link to another location.



URL pop-up menu

2. When links to other locations are contained within text (also known as *hypertext*) on a Web page, HandWeb underlines the words. You may follow these links by tapping on them and using the **Open** option in the pop-up window as shown above.

In addition, there are several navigation buttons at the bottom of the browser window:

	"Back" — brings you back to the previous location.
	This button opens a pop-up list of the last ten URLs you have accessed during this browsing session, allowing you to reload them easily. Note: the history *folder* holds up to twenty entries.
	"Forward" — lets you move forward to the next page (from which you just did "back").
	Displays the location of the current page and its title at the top of the screen like this:
	Switches back to the Bookmark window, where you can organize your own lists of URLs.

“Hotspots”

When you tap on *hotspots* (either images or hypertext), HandWeb displays a pop-up menu that gives you three options:

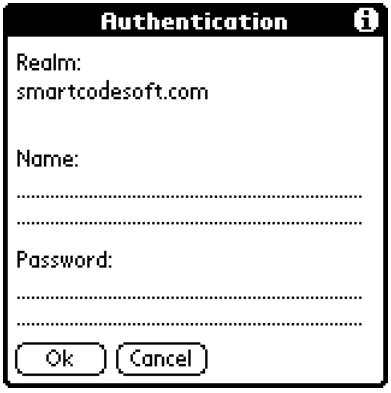
Open HandWeb will open the specified page in the browser window.

View This displays the link’s URL coordinates.

Add to This allows you to add the link to your bookmark collection (discussed in the next chapter).

Accessing password-protected sites

Some Web sites are password-protected, and require you to type a name and password before entering. When HandWeb encounters a site that requires this type of *basic authentication*, it displays the following window in which you may enter your name and password:



Entering your password for protected sites

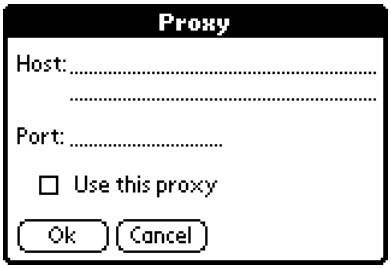
Simply type in your name and password, and tap on **Ok**.

Using a Proxy server

A Proxy server is a host machine that serves as a “Web access helper” for browsers. A proxy can, for example, pre-format or filter Web pages before passing them to your browser. It can also store frequently accessed Web pages locally so that your browser does not have to go all the way to the original site to read requested pages. Proxy servers are most often used in corporate environments.

HandWeb does not require the use of a proxy server, as it accesses the Internet directly and analyzes the Web pages “on the fly”. You may, however, use a proxy server if you choose.

To identify your proxy server, select **Menu** ⇒ **Proxy setup**:



Identifying a proxy server

Fill in the fields accordingly:

Host Enter the name or numeric IP address of the proxy server you intend to use.

Port Enter the port number used by the proxy. We recommend that you check with your system administrator to get the exact details.

Tap on the checkbox “**Use this proxy**” in order to force HandWeb to use the specified proxy server.

Saving Web pages as Memos

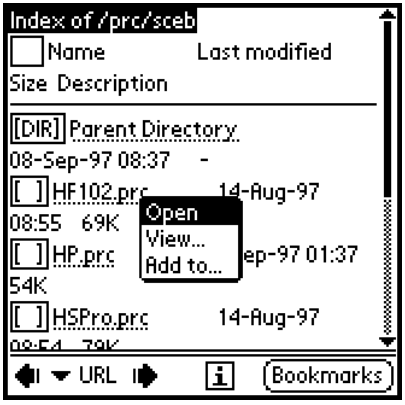
As you browse, you may find it useful to be able to save the pages you are reading for future reference. To save the current Web page, select **Menu** ⇒ **Save as Memo**. The page will be stored directly in the "Unfiled" category of your PalmPilot's Memo Pad application.

Note: No confirmation appears on the screen for this operation.

Downloading .PRC files

HandWeb has an integrated file loading mechanism that allows you to load PalmPilot application files (with .PRC or .PDB extensions) directly over the Internet. To do this, simply enter the URL address of the file you wish to install, and let HandWeb do the rest.

For example, you could connect to a site such as the one shown below, which contains a listing of various .PRC files:



Downloading .PRC files

Notice that the file names are underlined and treated as *hypertext*. Select **Open** from the pop-up menu, and HandWeb will begin downloading the file.

Server setup for preparing downloads

Read this section if you intend to make .PRC or .PDB files available for download from your own Internet or Intranet server.

In particular, it is important to know that:

1. HandWeb is able to install downloaded files only when they are transmitted in binary format. This will not work if you use a "Content-transfer-encoding" scheme such as *Base64*.

2. HandWeb downloads files with ".prc" and ".pdb" extensions (case irrelevant).

3. HandWeb also recognizes the following two "Content-type", respectively for PRC and PDB files:

   "application/x-pilot-prc"
   "application/x-pilot-pdb"

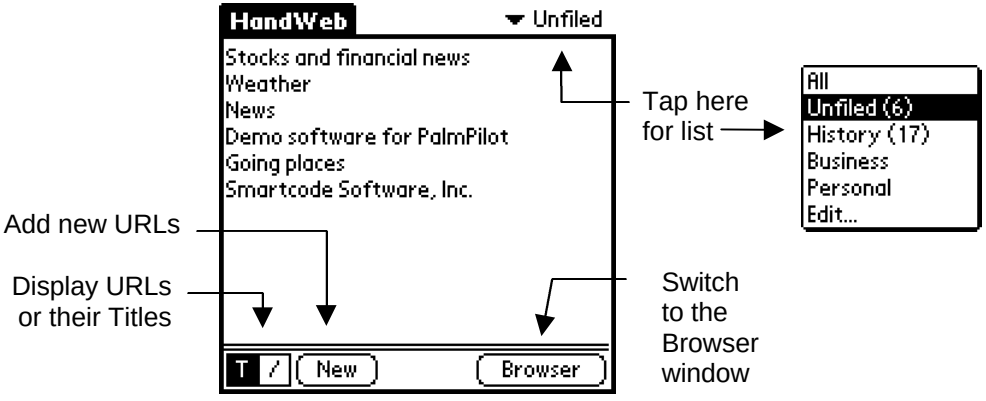
   This means that HandWeb will try to install any downloaded file marked with such content types regardless of their name.

5 Using bookmarks

HandWeb lets you organize your Web site references as Bookmarks on your PalmPilot. This will keep you from having to enter Web addresses each time you want to browse the Web. Bookmarks may be organized in customizable folders, or left as “unfiled”. HandWeb’s bookmark management operates in the same way as the PalmPilot’s categories in other applications. You may enter up to eight user-definable folders for storing your bookmarks.

The bookmark window

When you start HandWeb, it automatically opens to the bookmark window, as shown here:



Bookmark window

Using the bookmark pop-up menu

Use your stylus to highlight an entry in your bookmark list, and select the appropriate option from the pop-up menu:

Open	Tap here to open a Web page
Edit	Tap here to change an entry's settings
Move to	This allows you to move the current selection to another folder
Duplicate	Makes a copy of the current selection
Delete	Removes the current selection from the bookmark list

Viewing your bookmarks

You may display your bookmarks either as complete URLs, or by their Titles (if you entered them). Use the switchbox T / to choose the display you prefer, as shown here:

Viewing URLs by title

6 Technical issues

Modem cabling

The easiest modem to use with the PalmPilot is, of course, the PalmPilot clip-on modem. This modem is specially designed for the PalmPilot and does not require any cabling.

If you do not use a PalmPilot modem, we recommend one of the following three ways for connecting your PalmPilot organizer to a modem:

1. Use a U.S. Robotics modem cable (part no. 1011U). This cable allows you to connect the PalmPilot directly to a modem.

2. Use the standard PalmPilot cradle adapter, and attach a null-modem adapter to the end of the cable.

3. Use a HotSync cable, and attach a null-modem adapter.

It is important to configure your modem to not drop DTR (Data Terminal Ready). Usually this can be done through a proper modem initialization string, or by setting Dip switches on the modem. If DTR is configured improperly, you will get an error. For additional information on modem configuration, please consult your PalmPilot and/or modem user manuals.

HandWeb messages

HandWeb can display two types of error messages: those specifically related to Web protocols, and those generated by HandWeb itself.

Note Unpredictable communication errors may occur due to low batteries in your modem.

Here is an alphabetical listing of the various messages you may encounter while using HandWeb:

A TCP error occurred while downloading.

This usually means that there was a timeout while loading a page (i.e. it took too long...)

An error occurred while downloading. Maybe the file format is not correct or you do not have enough free memory.

Check to make sure you have enough free memory in your PalmPilot to download files.

Code 404 – Not found

The URL you tried to reach was not at the specified address

Connection error

The specified server could not be reached or did not respond.

Error resolving host name

This implies that the server you specified either could not be found at this time or does not exist.

HandWeb requires a PalmPilot with Rom 2.0 (or higher) and Palm's TCP/IP stack.

HandWeb only runs on PalmPilot Professional and compatible computers.

Not enough free memory

HandWeb needs more free memory to perform the selected operation. Try deleting unused applications.

Protocol error

An HTTP-level error. Please contact our technical support.

Technical support

Our support policy

Support for HandWeb may be obtained from either our U.S. or European offices by phone, fax, or e-mail.

We provide standard technical support for HandWeb free of charge for 30 days after purchase. Due to the volume of telephone calls, priority is given to questions asked via e-mail.

Please register your product so we can keep you informed on new releases, upgrades, or patches.

Contacting technical support

You may contact our technical support staff at the following addresses:

North America

Smartcode Software, Inc.
Sorrento Towers
5355 Mira Sorrento Place
San Diego, CA 92121

http://www.smartcodesoft.com
e-mail: support@smartcodesoft.com
Phone: +1 (619) 597-7544
Fax: +1 (619) 597-7444

Europe

Smartcode Technologie, S.A.
Cap Alpha
Avenue de l'Europe, Clapiers
34940 Montpellier, France

http://www.smartcode.fr
e-mail: support@smartcode.fr
Phone: +33 (0)4 67 59 30 40
Fax: +33 (0)4 67 59 30 48

Registration form

Copy or print this form, fill it in, and mail or fax it back to us in order to register your copy of HandWeb. (Packaged versions contain a registration card that you may send to us by mail if you prefer).

Fax in U.S.: 1 (619) 597-7444 • Fax in Europe: +33 (0)4 67 59 30 48
E-mail: register@smartcodesoft.com

Serial No. _____

Your name: _____

Title: _____

Company name:_____

Address _____

_____

City _____

State/Province _____Zip/Postal code _____

Country _____

Phone: _____

Fax: _____

E-mail: _____

Where did you purchase your product?_____

How did you hear about HandWeb? _____

Your PalmPilot model and desktop computer (PC, Mac)? _____

_____

What kind of modem do you use?_____

Which ISP? _____

7 Index

•

.PDB (downloading) · 26
.PRC (downloading) · 26

B

Base64 · 26
basic authentication · 23

C

connection script · 18
cradle adapter · 29
CSLIP · 17

D

Dip switches (modem) · 29
Domain name servers · 17
Downloading files · 26
DTR · 29

G

Graffiti · 9

H

HandWeb.prc · 11, 12
HotSync · 13
HotSync cable · 29
HTML (defined) · 8
HTTP (defined) · 8
HyperText Markup Language · 8
HyperText Transport Protocol · 8

I

InstallApp (Mac installation) · 12
InstApp.exe (Windows installation) · 12

M

modem (low batteries) · 30
modem cable · 11, 29

N

Network panel · 15

P

Phone · 16
PPP · 17
proxy server · 24

S

serial number entry · 13
SLIP · 17

T

TCP/IP · 8
technical support · 31
Transmission Control Protocol / Internet Protocol · 8