

Palm_PR demo

User's Manual

Intertraff Palm_PR demo User's Guide

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Preface

About This Guide

This user's guide describes how to use the most popular features in Palm_PR 2.0, the Automatic Number Plate Recognition Software from Intertraff.

This product runs under Microsoft Windows Mobile 2003.

Intertraff Palm_PR demo must be executed on a Personal Computer running Windows XP or Windows 2000 SP4. During installation Palm_PR will be automatically uploaded onto your Pocket PC. For this reason before proceeding with installation you need to connect PDA to PC via Microsoft Active Sync

This preface describes the conventions used in this guide. For an introduction to Palm_PR, see Chapter 1, "Introducing Palm_PR".

Assumptions

This guide assumes you are familiar with the version of Windows you are using. If you are not familiar with Windows terms such as "dialog", "icon", "option", or "drop-down list", see your MS Windows documentation.

Documentation Feedback

Intertraff is interested in your suggestions for improving both the print and the online documentation for the Palm_PR. We are interested in knowing what works and what needs improvement. Did you find errors, omissions, or confusing information? Tell us if you found information too difficult to find.

Tell us where you looked for information, and where you looked first.

Your feedback will help shape future versions of the documentation for the Palm_PR.

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1

Introducing Palm_PR

This chapter introduces the Palm_PR demo, Automatic Number Plate Recognition for Microsoft Pocket PC 2003

About Palm_PR demo

Palm PR runs on any PDA where Microsoft Windows Mobile 2003 was previously installed. The non-demonstration software license uses a Compact Flash camera, to continuously analyse the live picture looking for number plates. Once a vehicle plate is detected the number is recognized using a series of complex template-matching algorithms and a full image picture of the vehicle and its plate patch is stored on the SD memory card. The reading result is also compared with the local database to find out if the vehicle is stolen, authorized, etc.

This demonstration software license has the following limitation:

- **reads number plates only from BMP image files (camera is not supported)**
- **may read only 1000 pictures then it shuts down**
- **works only for 15 days**

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Installing the Palm_PR demo

This chapter describes the Palm_PR demo installation process. Topics in this chapter include:

- Reviewing system requirements
- Installing the Palm_PR
- Uninstalling

Before installing the Palm_PR demo, please assure that the PDA is connected to your PC via Microsoft Active Sync.

You need first to install Palm_PR demo on your Personal Computer. Then it will automatically upload the demonstration onto your PDA.

By the way you can upload the demo on your PDA choosing anytime Start/Program Files/Intertraff/Upload Palm_PR demo on PDA

Before proceeding with installations we recommend that you read the system requirements section to familiarize with the hardware and software requirements.

Reviewing System Requirements

The following table outlines both the minimum and the recommended system requirements for installing and running the Palm_PR.

Personal Computer configuration:

Equipment	Minimum	Recommended
Operating system	Windows XP SP2 or Windows 2000 SP4	Windows XP SP2
PC	Intel Celeron Processor 2.00 GHz or higher, a mouse, and an SVGA graphics display (1024x768 resolution)	Intel Pentium IV 2.00 GHz or higher, a mouse, and an SVGA graphics display (1024x768 resolution)
RAM	Windows 2000 – 256 MB Windows XP – 256 MB	Windows 2000 – 512 MB Windows NT4 – 512 MB

Hard disk space Required	50 MB	100 MB
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PDA configuration:

Equipment	Minimum	Recommended
Operating system	Powered by Microsoft® Windows® Mobile 2003	Powered by Microsoft® Windows® Mobile 2003
Processor	400 MHz Intel® XScale™	Intel® PXA270 Processor 624 MHz
Display	any	Transflective type TFT color with LED Backlight
Memory	64 MB SDRAM	64 MB SDRAM
Number of Colours	64K colour (65,536 colours) 16-bit	64K colour (65,536 colours) 16-bit
Expansion	Not needed	128 MB SD Memory Card

Before You Install the Palm_PR demo

To ensure a smooth installation, we recommend you follow the procedure below before you install Palm_PR demo 2.0:

1. Exit all programs
2. Check for sufficient disk space. Your requirements will vary, depending on the type of installation you choose. See "Reviewing System Requirements".

3

Starting the Palm_PR demo Installation

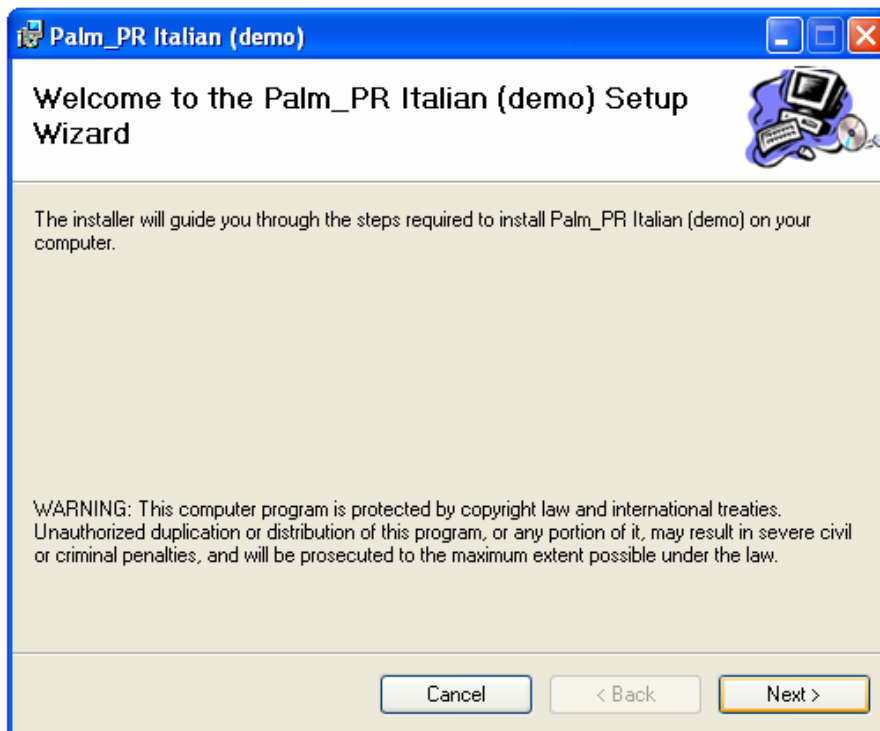
Launch please Microsoft Active Sync and establish a connection between your PC and PDA. As said you need first to install Palm_PR demo on your Personal Computer, then during installation, installer will automatically upload the demonstration onto your Pocket PC. Alternative once the demo will be successfully installed on your PC you may upload the demo on your Pocket PC choosing Start/Program Files/Intertraff/Upload Palm_PR demo.

The Setup program guides you through the installation process by prompting you for information and automatically determining your system configuration and available disk space.

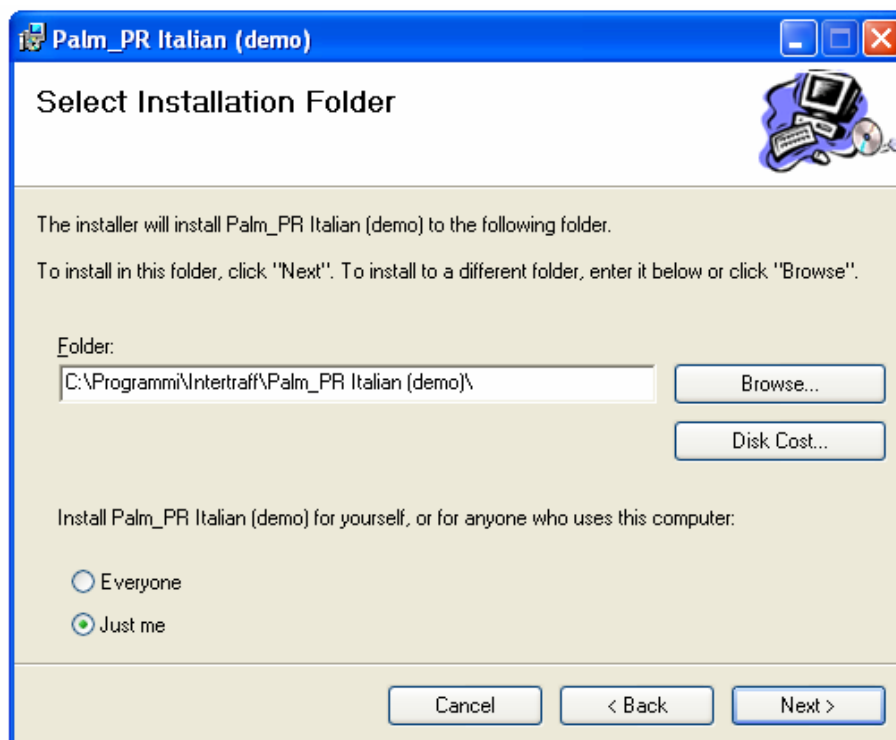
Note to Windows 2000 users: If you are installing Palm_PR demo under Windows 2000, you must have *administrative* privileges.

To install the Palm_PR demo:

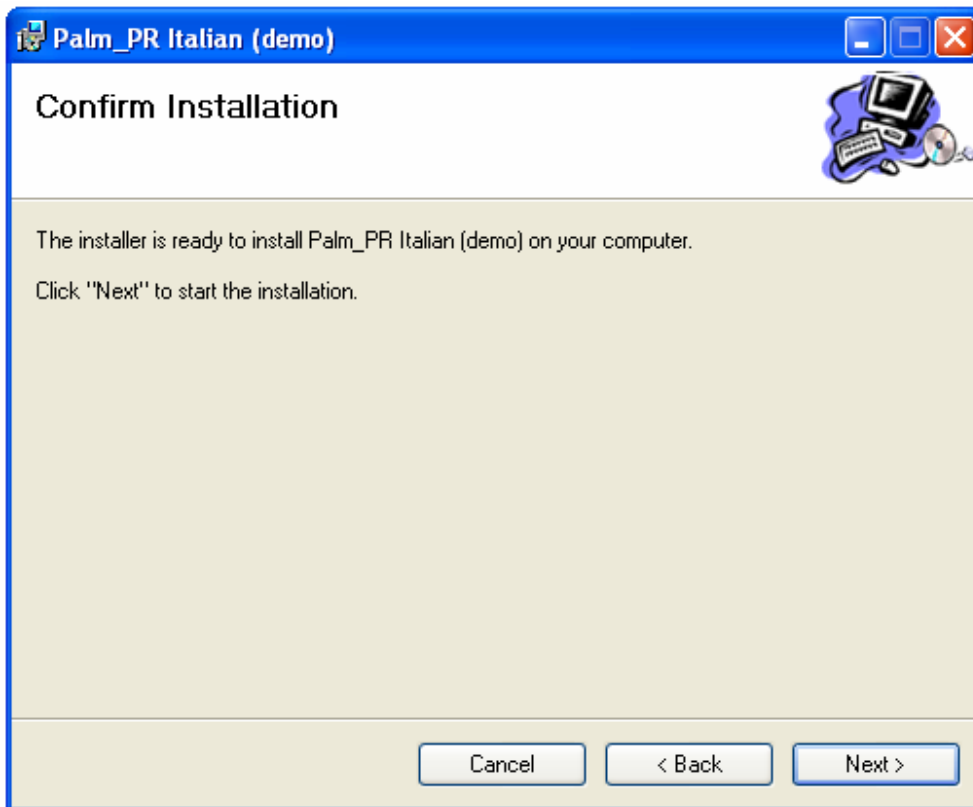
Double click on the Palm_PR demo.EXE file. Install Shield will connect to Intertraff web site to download the Palm_PR demo. Once the downloading will be completed Install Shield will install Palm_PR demo on your Computer.



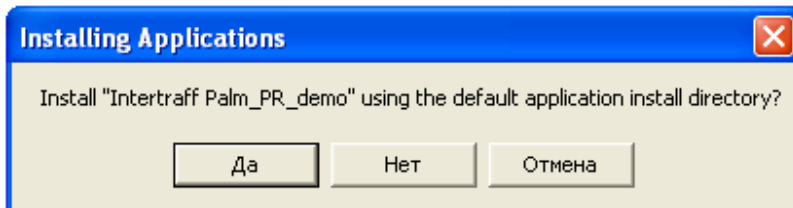
Press Next to proceed



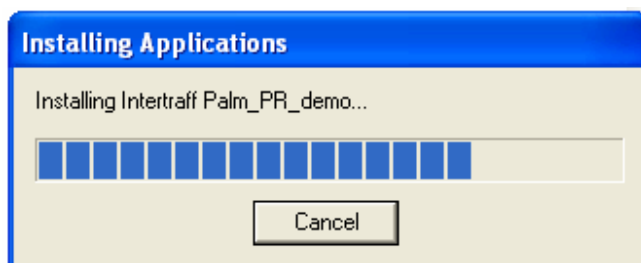
Check the installation folder, select <Everyone> or <Just me> and press <Next> to proceed



Select Next to let the installation starting.

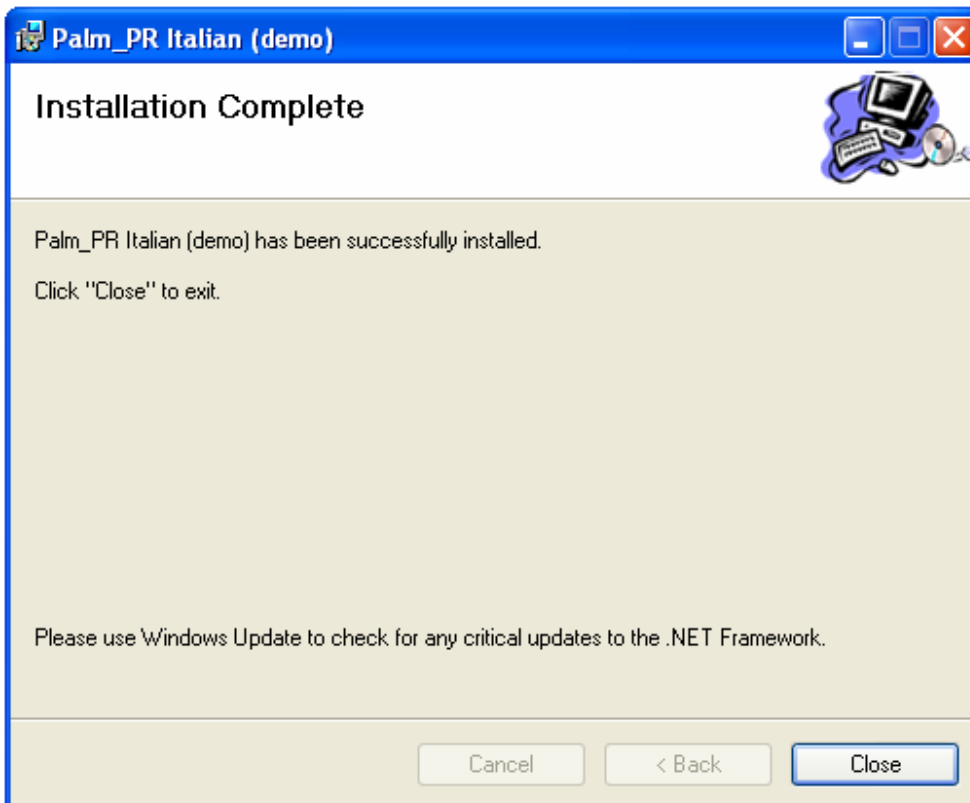


Press <Yes> to install Palm_PR demo on the PDA default folder





Just please press OK



By choosing <Close> the Intertraff Palm_PR demo installation will be completed.

Uninstalling Palm_PR

At some point, you may want to uninstall the Palm_PR.

To uninstall the Palm_PR choose Start, Control Panel, select the Installation icon then select Palm_PR_Demo and press Remove to uninstall Plam_PR from your PC and PDA

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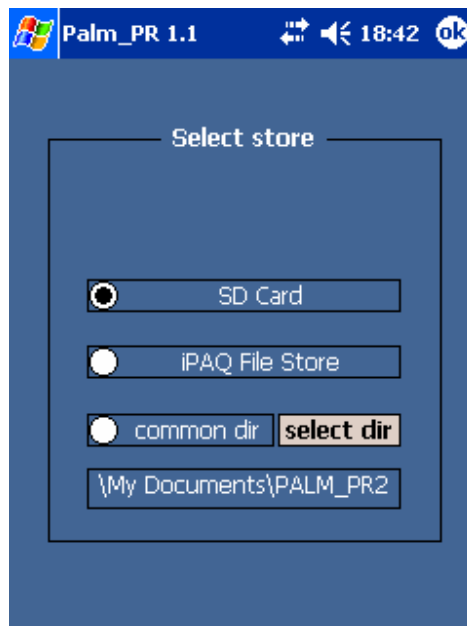
Getting Started

Once you have installed the Palm_PR, you are ready to start exploring the program.

User Interface

Take the Pocket PC and run Palm_PR selecting Start/Program Files/Palm PR demo.

If it's the first time that you are running Intertraff Palm_PR you will see an interface as the one shown below:

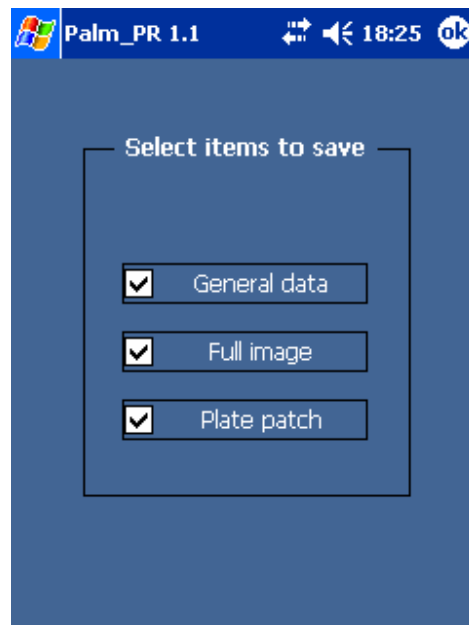


For every number plate reading Palm_PR saves

- a full image picture
- the plate patch picture (image of the number plate)
- general data like number plate in text format, date, time, message to the operator etc

Here the software application requires you to select where would you like to save the data.

We strongly advice you to choose the SD memory card as the information saved by Palm_PR may occupy soon a considerable amount of disk space. In case a SD memory card is not available then please from time to time do not forget to free up disk space.



By the way, anytime Palm_PR is launched you may select which data saved. See picture above for details.



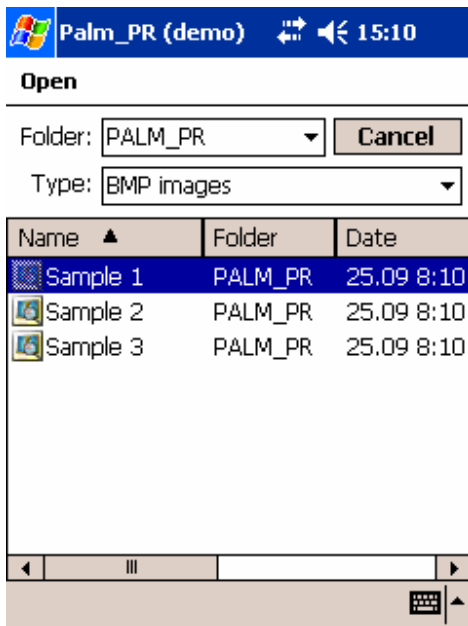
So this is the main application interface. In the non-demonstration software license the images grabbed by the Compact Flash Camera would be reproduced in real time into the black window.

In Palm_PR demo you need to double click into the black window to select a bitmap picture which Palm_PR will try to recognize.

Three pictures are included by default into the installation package. To select a picture please double click onto it.

If you need more pictures please access the subfolder <Pictures> in C:\Program Files\Intertraff\Palm_PR demo\ and upload onto the Pocket PC via Microsoft Active Sync. Due to PDA memory limitation, we strongly recommend to upload no more than 5 to 10 pictures per time, then to delete those pictures before uploading the new one.

For more details, see the Picture n.1 below:



Picture 1



Picture 2

The Picture n.2 here above is an example of reading where the image of the vehicle number plate is freeze in the main window, an image of the plate patch displayed on the bottom left of the screen and opposite to the plate patch, the number plate in text format.

The bar between the Program Option and the plate patch is reserved to the messages to the Operator.

In the non demonstration license each number plate reading is compared with the information saved into the Black and White list archives.

These two archives are uploaded into the Palm_PR unit via an Instation software named Palm_PR Manager. To get more information about Palm_Pr Manager please access the following link: <http://www.intertraff.com/palmpr/palmprmanager.php>

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Quick Searching Option

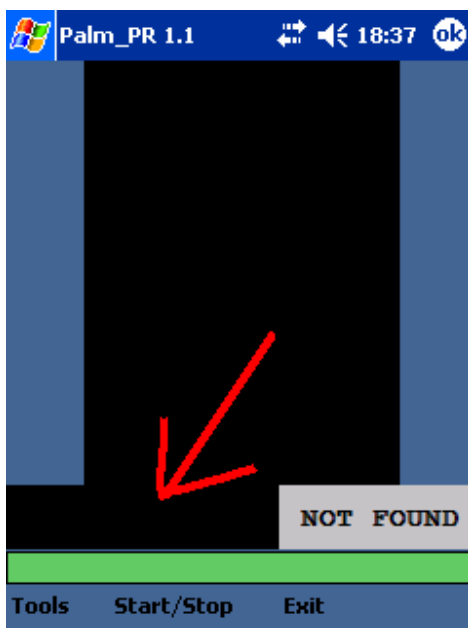
Intertraff has developed a software application named Palm_PR Manager to centralize and manage all the data captured by any Palm_PR unit.

To get more information about Palm_Pr Manager please access the following link:

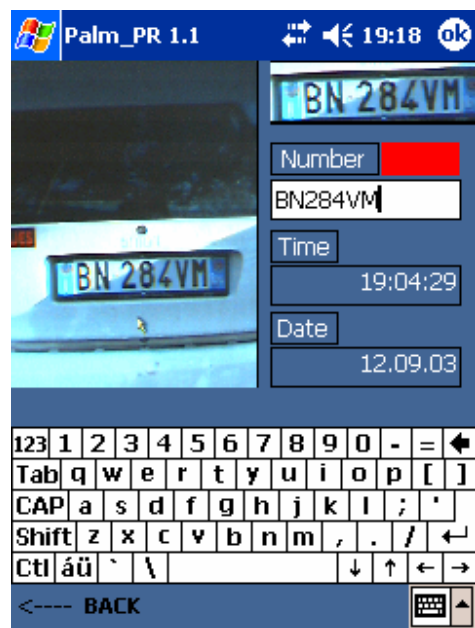
<http://www.intertraff.com/palmpr/palmprmanager.php>

By the way Palm_PR has a quick searching option through which it is possible to search for a certain number plate and check if that number plate was read or not by the system.

To access the Palm_PR quick Search Option please double click on the plate patch window (see picture n. 1):



Picture 1



Picture 2

Picture n. 2 represents the Palm_PR a quick searching option interface

Just use the keyboard to the number plate into the Number Plate field and then press Enter to start the searching.

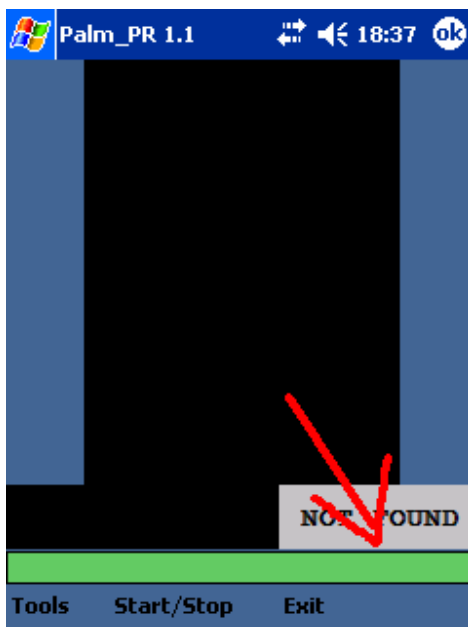
If the record will be found, then the full image picture, the plate patch picture, date and time of reading will be displayed to the Operator.

To come back on the main unit interface, just press the writing <Back> (bottom left of the screen)

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Data modification

In case Palm_PR would make a mistake on number plate reading, Operator may anytime access the Data Modification Window by double clicking on the plate text sub-window, see picture 1 below:



Picture 1



Picture 2

Once in the Data Modification Window, he may use the keyboard to amend the reading as shown in the picture n. 2 here above.

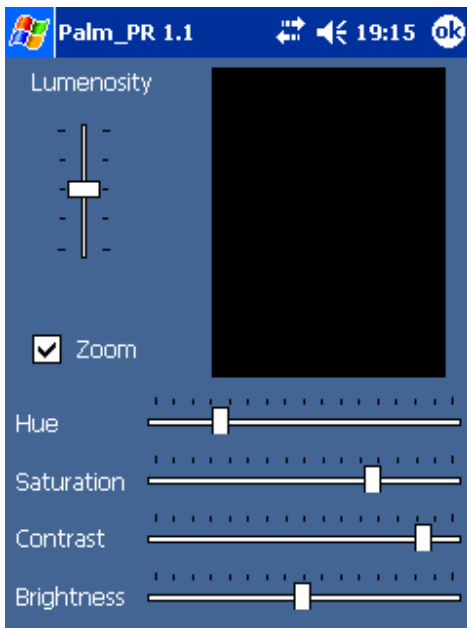
7

Options

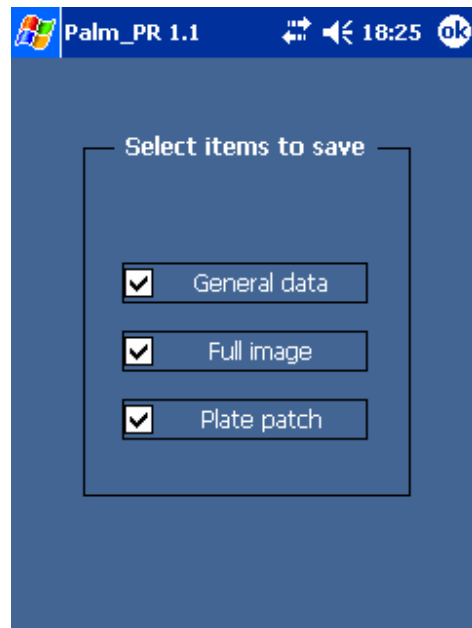
The following shows the menu options available and their functions:

Tools/Camera

In the non-demonstration license, Palm_PR Operator may tune the Compact Flash camera setting accordingly with external current light condition. This option is not supported with Palm_PR demo.



Picture 1



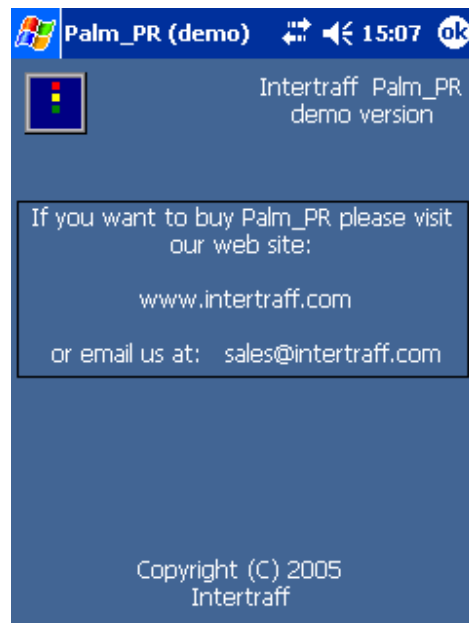
Picture 2

Tools/Save What

In the non-demonstration license, Palm_PR Operator may tune the Compact Flash camera setting accordingly with external current light condition. This option is not supported with

Tools/About

Selecting this option will display an About Box showing details of Intertraff Palm_PR demo version 1.0



Start/Stop

This Option works only with the full software license and is related to the Compact Flash Camera. Pressing Stop it's possible to stop the picture reproducing in the main window.

Exit

Use it when you need to close the Palm_PR.