

# Palm Reflections



## Overview

Palm Reflections is a synchronization, installation, and archival application between PalmOS handheld devices and the BeOS. Palm Reflections sits on the user's deskbar and is always available to synchronize PalmOS databases with data storages on the BeOS. Palm Reflections comes with several conduit add-ons to synchronize many of the most common Palm databases with the BeOS.

Palm Reflections was primarily developed for Personal Assistant. Commercial version of Personal Assistant contains the required conduits to synchronize data from the Personal Assistant database and addresses, to-dos, and calendar entries on the PalmOS device.



## Features

Palm Reflections is a full feature synchronization, installation, and archiving application between the BeOS desktop and PalmOS handheld devices.

Palm Reflections uses add-ons that are dynamically loaded when the application is first run. These add-ons are used to interface with any number of PalmOS databases and a selected conduit that interfaces to a specialized database or application on the BeOS desktop.

### General

- Preferences control the interface to the handheld. This includes serial port and USB type devices.
- Synchronization status is logged to a file.
- Log files can automatically be deleted at pre-defined intervals.
- Easy extensibility with default or third party add-ons. The add-ons allow for quick and responsive updates to the interface modules of the application.
- Text encoding.

### Synchronization

- Synchronization is accomplished through dynamic add-ons that are loaded when the application is first run. This allows for additional and updated add-ons to be distributed without the dependency of the Palm Reflections to be updated.
- Synchronization is split between two types of add-ons, translators and conduits. This provides faster development of conduits for third party developers.
- Any number of conduits can be loaded at one time. This allows different conduits to be used for different user accounts.
- A long list of translators and conduits are available for download [here](#).
- Synchronization data associated with the records stored on the desktop may be cleared. This may be needed when a new application is installed on one device and all of the corresponding records must be transferred to the other device.

### User Accounts

- Any number of PalmOS devices can be synchronized with the desktop. Each uniquely named handheld can be managed separately from one another.
- Each user account can select which translators are active and which conduit is to be used for each translator.
- New user accounts can be added.
- New user accounts are defaulted to user defined settings.
- User accounts can be deleted.
- User accounts can be renamed which will also rename the name of the handheld the next time the HotSync button is selected.
- Un-named handheld devices will be automatically named.

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## Installation

- Any PalmOS application or database can be installed to the handheld device during the next synchronization.
- Date and time is retained on the desktop when the application or database was installed for each user account.
- Already installed applications or databases can be forcefully re-installed at the next synchronization.

## Archiving

- Applications and databases are automatically archived to the desktop if they have not already been archived or if they have been modified since the last synchronization.

## Conduits

- MemoDB with Text File, 1.0.1
- AddressDB with BeOS People, 1.0.1
- ToDoDB with XML file, 1.0.1
- ExpenseDB with delimited file, 1.0.1
- DatabookDB with XML file, 1.0.2
- MailDB with BeOS Mail, 1.0.1

## Translators

- MemoDB, 1.0.0
- AddressDB, 1.0.0
- ToDoDB, 1.0.0
- ExpenseDB, 1.0.0
- DatebookDB, 1.0.0
- MailDB, 1.0.0



## Screen Shots

The images below provide an overview of what Palm Reflections looks like. To appreciate the depth of the application, please visit the feature list. The best way to experience Palm Reflections is to download the application.

## Deskbar

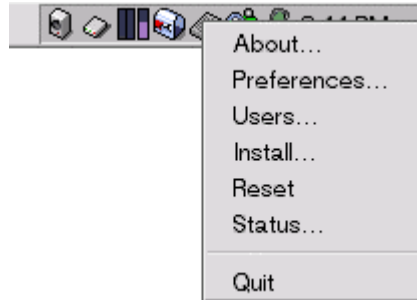
The user interacts with Palm Reflections directly from the deskbar.



## Deskbar Menu

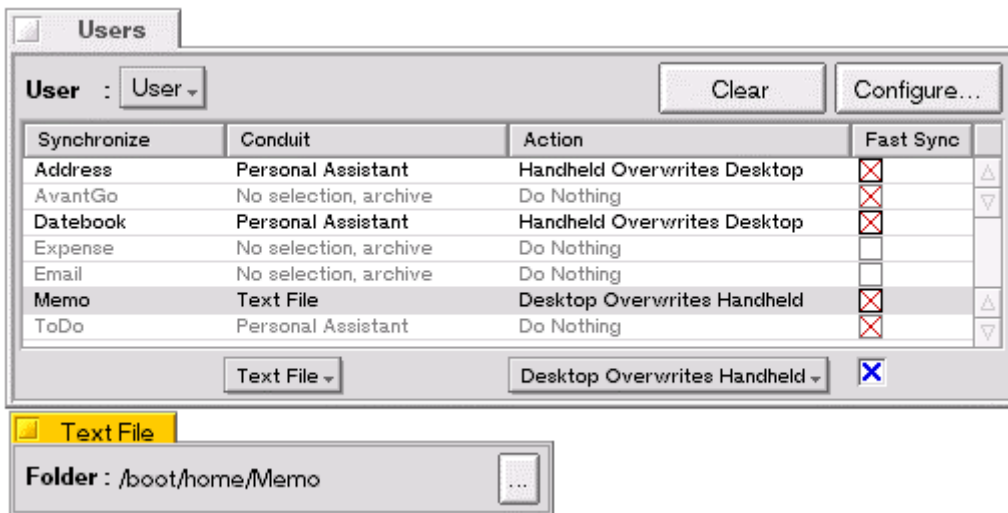
All the functionality of the application is reached from the pop-up menu. This includes the application's preferences, user account information, installation of new PalmOS applications, and the status of synchronizations.

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### User Accounts

The Users window control any number of PalmOS devices. Each PalmOS is defined by a user name. Each user name can control what each loaded conduit will do and any additional preferences a conduit may have. Since any number of conduits per PalmOS database may exist, each user account may select a different conduit to run.

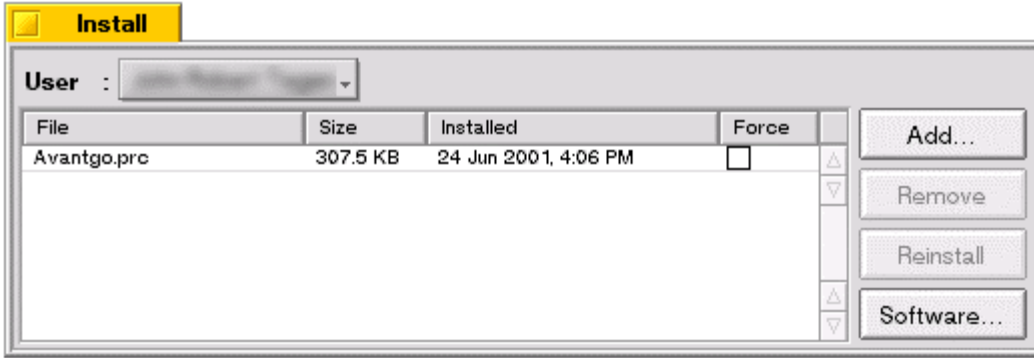


Additionally, any synchronization information retained by a conduit may be cleared. Once a conduit data record has been cleared, it will appear as a new data record during the next synchronization. This may be useful if a hard reset or information was totally lost on the PalmOS handheld device.

### Installation

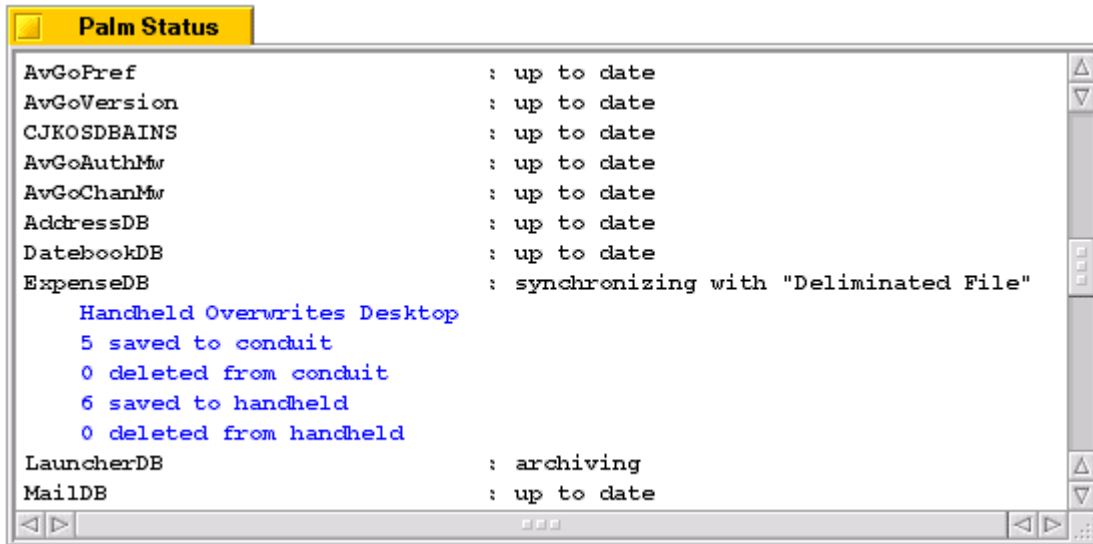
Install window allows for downloaded PalmOS applications and databases to be installed onto the PalmOS handheld device during the next synchronization. The user can simply select the file(s) to install. Already installed files will display the data and time of the installation. Additionally, already installed files can be forcefully re-installed by selecting the **Force** option for each file, per user.

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## Status

The Status window is displayed during synchronization. It displays the current status of the synchronization. The preferences window may control the level of information displayed.



## About

The About window displays the current version of the application as well as all the loaded translators and conduits. Each translator and conduit displays the author, version, e-mail, and the authors web site. Selecting the e-mail link will run the default e-mail application with the address filled in. Selecting the author's web link will display the page in the default web browser.



## Palm Reflections



## Support

This page lists the most commonly asked questions about Palm Reflections. Using this resource may provide you timely answers to your questions.

### General

- Why are you offering this product for free?
  - We wanted to provide a more relaxed interface to Personal Assistant from PalmOS handheld devices. Additionally, current market does not support a commercial version of this product. However, that does not mean that we will not offer future versions as a commercial, paid product.
- Are you really supporting USB devices like the Visor?
  - We are doing our best to provide this solution. Due to the lack of developer support, we may not be able to figure out the USB interface and therefore not be able to provide for those devices. One of the main purposes of developing Palm Reflections is to support USB devices. But due to the current market conditions, this may not occur.
- I have XYZ PDA that Palm Reflections does not synchronize with. How can I exchange data with?
  - Currently, Palm Reflections only synchronizes with PalmOS devices. If the demand for additional PDA's exist, we will evaluate how best to interface with those devices. Contact [info@omiconsoft.com](mailto:info@omiconsoft.com) with your desire to include your device in a future release of Palm Reflections.
- I have a PSION PDA. When will Palm Reflections be able to synchronize with it?
  - We are currently investigating what it would take to provide synchronization to this and other manufacturers PDA's. PSION synchronization SDK is reliant on Microsoft Windows API. PSION is working on an open interface and protocol that will allow for synchronization possible in the future. We cannot provide an absolute release date at this time. Please visit our site often for any updated information on this effort. In addition, it would help to contact PSION with your interest to assist us in this effort.
- I have a Handspring Visor PDA that uses the PalmOS but connects to my computer with a USB and not a Serial connection. How can I use this with Palm Reflections?
  - Currently, Palm Reflections only works with serial connections. Handspring offers a serial cradle for around \$30US here. In the meantime, we are investigating how to support USB PDA's natively.
- Will you be supporting iPAQ from Compaq?
  - We are looking at the feasibility, but do not have immediate plans to synchronize with this device.

### Conduits / Translators

- How can I find out more information about developing a conduit for Palm Reflections?
  - We developed conduits as add-ons to the main application the sits on the deskbar. Once we are satisfied that the interface with the conduits have been resolved, we will release the specifications which will allow other developers to extend the capabilities of Palm Reflections with additional conduits. Current SDK information may be found [here](#).
- What are Palm Reflection Translators?
  - We have separated the interface to PalmOS devices into two parts: Translators and Conduits. The translators translates PalmOS records to and from BeOS BMessages. Conduits interface between a BeOS BMessage and their particular data storage. This separation allows for conduit development to be more flexible and faster to develop since the marshaling of data is the responsibility of the Translator. Additional information may be found [here](#).

## Palm Reflections

- Will Palm Reflections support AvantGo?
  - We are investigating how best to integrate AvantGo capabilities into Palm Reflections.
- Where do I place new or update translators and conduits?
  - New and updated translator installation should have a linked folder to drop the add-on into. However, if it did not, translators should be placed in `/boot/home/config/add-ons/PalmReflections/Translators`, and conduits should be placed in `/boot/home/config/add-ons/PalmReflections/Conduits/`.
- I downloaded a new conduit/translator, and installed it in the proper location. How do I get the application to then use it?
  - Palm Reflections probably notified you that it detected a new conduit or translator. Conduits and translators are only loaded when the application is started. You will need to quit and restart the application for the new add-on to be used.
- How do I know which conduits and translators were loaded by the application.
  - The loaded conduits and translators are listed in the About window. The type, version, author, web site, and e-mails for each add-on is listed in this window. Additionally, the loaded add-ons are displayed in the Status window.

### Installation

- How do I install a new application to the PalmOS handheld device?
  - Each user account can select the PRC or PDB files to be installed. The next time the handheld device is synchronized with the desktop, the selected files will be installed.
- How do I re-install an application to the handheld device?
  - From the installation window, toggle the Force items for the applications that were previously installed for a particular user. The next time the handheld is synchronized with the desktop, the forced application, along with any new applications, will be (re)installed onto the handheld device.
- Where do I place downloaded Palm applications to be installed?
  - The location is not too important. Palm Reflections comes with a install folder in `/home/config/settings/OmicronSoft/PalmReflections/Install` that contains several PalmOS applications that the user may install. You can place it there or near your `/home` folder. When selecting a file to install, each user account merely references the selected file(s).
- How come when I install the German version, the menu in the deskbar is still in English?
  - You probably have an English version still on the system. You will need to delete all English versions of Palm Reflections and reboot the machine.

### Archiving

- How do I stop Palm Reflections from archiving a database or application?
  - You can't. Any handheld application or database that was modified since the last synchronization, and is not selected to be synchronized with a conduit, will be automatically archived onto the desktop. This is to safeguard the data and applications on the handheld device from accidental loss.

## Palm Reflections



### Developer (SDK)

This section of Palm Reflections will contain information in how to develop translators and conduits for the application. It will contain the interface specification for the add-ons, code snippets to allow quick and easy integration of new translators and conduits.

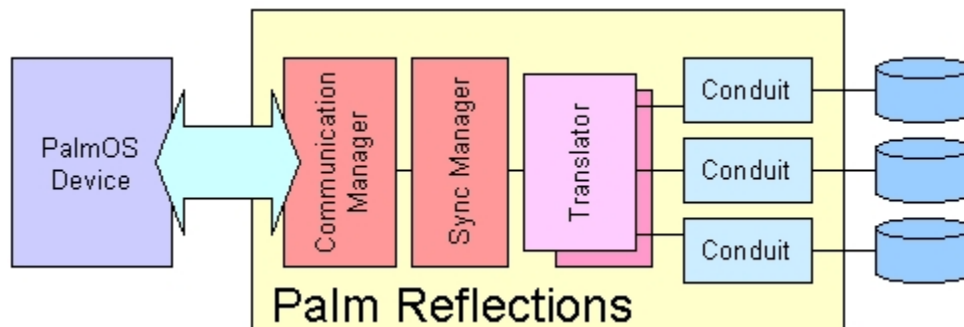
Interacting with Palm Reflections is accomplished through BeOS add-ons. There are two types of add-ons that Palm Reflections load when the application is started. They are Translator and Conduit add-ons.

#### Translators

Translators are add-ons that converts between the PalmOS database record definition and an abstract data container (BMessage). The BMessage protocol is published for each PalmOS database. The abstract data container allows for a single, unified interface to all PalmOS databases, the parent application, and conduits. The BMessage interface also allows for changes in the protocol not to break the interface definition of the add-ons. The translator is not responsible how a conduit will manage the information of a PalmOS database. Any number of conduits can be loaded for a single translator. Only one translator for a PalmOS database will be loaded at the start of the application. If more than one exists, the first one encountered for a PalmOS database will be used and any remaining will be ignored.

#### Conduits

Conduits are add-ons that are managed by the parent application, Palm Reflections, and accepts and returns the protocol defined by a translator and the data store defined by the conduit. Any number of conduits can be loaded for a single translator. It is the user definition that determines which conduit will be used with a translator. Conduit interface is a calling interface. The parent application is responsible to call various conduit interface methods. It is the responsibility of the conduits implementation to respond to those calls uniformly. The exact implementation of a particular method is up to the implementation of the conduit, but for example, the method Store in a conduit is responsible to store the given record in a format that is unique to that conduit; nothing else.



#### Conduit Preference Window

Each conduit has the option to define preferences that are changeable for each user account. The conduit implementation creates a window object and returns it. The parent application is responsible for the management of the created window. The conduit retains a pointer to the created window so that it can set and get the preference state of the window and so not to create multiple instances of the window. Conduits that provide preferences for their implementation should follow this simple style guide.

#### Software Development Kit (SDK)

A SDK is provided for both translators and conduits. It is important that developers writing add-ons for Palm Reflections adhere to the convention and standards for each interface.

## Palm Reflections

- Palm Reflections Translator SDK. This SDK provides the interface to writing new add-ons that interface between a PalmOS database. It established the protocol for conduits to interface to.
- Palm Reflections Conduit SDK. This SDK provides the interface to writing new add-ons that interface between a translator protocol and the data store of the conduit.

### FAQ

- I wish to write a conduit, but I cannot find a translator for it.
  - If a translator does not exist for your PalmOS application, then you will have to write that add-on as well. Once you have defined the protocol, other third party developers will be able to interface more easily.
- How do find out what the protocol is for a translator?
  - All translator protocols will be listed at this site. New translators should be coordinated from this site so that duplicate work is avoided and that the protocol follows the established convention. The simplest way is also to just print the contents of the BMessage data container when the conduit receives it.