

Bundling an Application With the Palm OS® Garnet 5.4 Simulator

Bundling your Palm OS application with the Simulator allows you to expand the usefulness of and market for your Palm OS applications while maintaining a single code base. It also allows you to create a new sales tool that demonstrates or provides training to potential customers that do not yet have a Palm OS device.

No complicated programming is necessary to create the customized package.

This document shows how you can bundle your Palm OS application with the Palm OS Garnet 5.4 Simulator, resulting in a version of your Palm OS application that can be run on Microsoft Windows.

Important: Redistribution of the Palm OS Simulator is subject to the terms of the redistribution license.

The Bundling Process

The following steps show how to bundle an application with the Palm OS Garnet 5.4 Simulator.

1. Download the Palm OS Garnet 5.4 Simulator from PalmSource's web site. It can be found at:
https://www.developerpavilion.com/palmos/page.asp?page_id=365&to ol_id=8
Note that you will be required to log in.
2. If necessary, unzip the downloaded file (PalmOS_Garnet_54_simulator.zip).
3. Within the Palm_OS_54_Simulator folder are three subfolders: debug, release, and Scripting. Copy the release folder to a working location (such as your desktop); this is the only folder you'll need. You can now delete the Palm_OS_54_Simulator folder.
4. Within the release folder are four files with a .rom extension, and four similarly named files with a .rom.reloc extension. Delete those .rom

and `.rom.reloc` files for languages that you are not supporting to reduce the size of the Simulator. The languages supported by each ROM in the Palm OS Garnet 5.4 Simulator are listed here:

Language	ROM Filename
Simplified Chinese	Simulator_Full_zhCN_Release.rom
Japanese	Simulator_Full_jpJP_Release.rom
US English	Simulator_Full_enUS_Release.rom
EFIGS (English, French, Italian, German, Spanish)	Simulator_Full_EFIGS_Release.rom

5. Create a `palmsim.ini` file by doing the following:
 - a) Run the Simulator by double-clicking on `PalmSim_54_rel.exe`. When prompted, select the ROM file corresponding to the language(s) you are supporting.
 - b) If necessary, work through the digitizer calibration screens, and any setup screens.
 - c) Control-click on the Simulator window and make any settings adjustments (such as color depth, RAM size, or dynamic heap size) needed by the bundled application.

To have the Simulator retain any information stored by your application(s), you must create a storage heap image, or “snapshot”. This snapshot captures everything in the storage heap, including your application. Follow these steps in order to create the snapshot:

- d) Install all the applications you’d like to bundle, including associated databases, by dragging them into the Simulator. Verify that these applications work correctly.
 - e) Create or import any default data that the user of this packaged solution should see at the first time the user launches the Simulator.
 - f) Control-click on the Simulator window and choose Storage -> Save. Supply a name for the snapshot file when prompted (by default, the Simulator uses `storage_snapshot.ssf`).
 - g) Exit the Simulator by clicking on the window’s close button.
6. Double-click the newly created `palmsim.ini` file (which is located in the release folder) to open it in Notepad, or open it in your favorite text editor.
7. Locate the line that starts with “ROM=” near the beginning of the file. Delete the path to the ROM file (but not the name of the ROM file itself) so that it looks something like this:

```
ROM=Simulator_Full_enUS_Release.rom
```

This allows your customers to unzip the Simulator to any folder and have it find the ROM image correctly.

8. So that the Simulator will automatically load the storage snapshot file when it starts, locate the line in `palmsim.ini` that reads `"StorageSnapshotFile="` and append the name of the snapshot file. For example:

```
StorageSnapshotFile=mySnapshotFile.ssf
```

9. If you want to make sure that any data that the user of the Simulator enters is retained when they exit the Simulator, locate the line in `palmsim.ini` that reads `"AutoSnapshotFile="` and append the name of the storage snapshot file. For example:

```
AutoSnapshotFile=mySnapshotFile.ssf
```

Note that this step is optional. If you don't specify an `AutoSnapshotFile` entry, every time the user starts the Simulator the storage heap will be restored to the state it was in when you took the original snapshot.

10. If you would like to have the bundled application start automatically when the Simulator is started, locate the line in `palmsim.ini` that reads `"AppCreator="` and append the application's creator ID. For example:

```
AppCreator=CLT2
```

11. Save the `palmsim.ini` file, and exit the text editor.
12. If you configured the Simulator so that your bundled application loads automatically, verify that it works correctly by double-clicking on `PalmSim_54_rel.exe`. Your application should launch in the Simulator. Exit the Simulator.
13. Rename the `release` folder as appropriate for your situation, and package it as needed (as a zip file, for instance).

Further Customizing the User Experience

Depending upon the experience you intend for the user, you may wish to make further customizations either to the Simulator or to the bundled application itself. The following sections detail some additional customizations.

Controlling Auto-Off Behavior

For most ROMs, by default the simulated device's "Stay on in Cradle" preference is checked (this is controlled from the General category of the Preferences app). The Simulator is "plugged in" (control-click the Simulator and select Settings...), simulating an "in the cradle" situation. Together these keep the simulated device from going to sleep. Either or both of these settings can be altered if appropriate for your situation.

If you want to keep the simulated device from going to sleep, but your ROM doesn't support the "Stay on in Cradle" preference, or if you need to make changes to either of these settings for other reasons, you can use Insomnia, a freeware utility that prevents the simulated device from going to sleep. This utility can be downloaded from Fresh Perspective Software's website, at

<http://www.fps.com/DisplayProduct.asp?itemID=32&item=Insomnia>

Create a folder named `AutoLoad` within the `release` folder. Place the Insomnia PRC file in the Simulator's `AutoLoad` folder.

Insomnia needs to be run once to keep the device from going to sleep. You have two options:

- Set the `AppCreator` line in the `palmsim.ini` file to `FPzz` (Insomnia's creator ID). Note that this precludes you from running your bundled application automatically upon startup. Also, Insomnia displays a form when it is run; this form will be the first thing the user sees when they start the Simulator.
- Instruct the user to run Insomnia from the launcher.

Displaying the End-User License

It is important to ensure that the Palm OS Simulator End-User license screen shows up after the end-user installs and runs the Simulator for the first time.

The `palmsim.ini` file doesn't control the display of the license. Instead, it is controlled by a registry setting stored at:

```
[HKEY_CURRENT_USER\Software\PalmSource\Palm OS Simulator]
```

Removing this key causes the license to be shown again. Note that it will only be shown once per user.

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