

# Testing your Streamspin Services

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## 1 Introduction

This is an introduction on how to use the Windows Mobile emulator for testing your Streamspin services. This file is an edited version of a section from [3].

### Using the Windows Mobile Emulator

To test a Streamspin service we could simply copy the Streamspin client to a Windows Mobile device and run it (assuming that the device has version 2.0 of the .Net CF installed). However, when creating and testing services, it is often much easier to use an emulator (notice that the emulator does not have GPS capabilities for obvious reasons). A Windows Mobile emulator is freely available [2] (the stand-alone version). Figure 1 shows a screen-shot of the emulator. Notice the two soft-buttons just below the *Notification* and *Contacts* menus in the bottom of the screen. These buttons are used to access the menus in the Streamspin client.

The freely available [2] Microsoft *ActiveSync* program must be installed before you can actually use the emulator. Assuming that Visual Studio is not installed, going through the following steps enables the testing of the newly created services. Install *ActiveSync* and the stand alone *Device Emulator*—follow the on-screen instructions. Start up both programs—*ActiveSync* will start by default when Windows starts. In the *Device Emulator*, an entry called “Windows Mobile 5.0 Pocket PC Emulator” should appear. Right click on it and choose “Connect.” The device emulator will now start a virtual device in a window. In this device, it is possible to use the standard programs delivered with the Windows Mobile operating system.



Figure 1: Emulator Screen

To install programs onto the emulator we use the *ActiveSync* program. First we will install the .Net CF 2.0—the operating system as the default only comes equipped with the .Net CF. The .Net CF 2.0 End User Redistributable is downloadable [1]. Before running the installer, the *ActiveSync* program must be started, as it is used to transfer the framework to the emulator. To make the emulator visible for the *ActiveSync* program it is necessary to simulate that the device is in a cradle. To do so, go back to the device manager, right click the running image, and press the cradle option. This emulates that an actual Windows Mobile device is put into a cradle attached to the computer’s USB port. The device should now pop up in the *ActiveSync* program. In addition, a synchronization wizard might pop-up. The wizard can simply be closed.

The next step is to start up the framework installer and to follow the on-screen instructions. This will install the framework onto the emulator. Note that user input is required in both the installer and on the emulator (including a restart of the emulator). It is now possible to copy the newly created program to the emulator. In *ActiveSync*, the *Explore* button in the toolbar is pressed. This brings up an explorer window that gives access to the file system. Download the latest Streamspin client from the web-site, unpack it locally on the pc.

The directory "Program Files" in "My Windows Mobile-Based Device" is ac-

cessed and a directory is created in which the client executable (plus any DLL files) is placed. The program can now be started on the device emulator by choosing “Programs” in the start menu and then starting the “File Explorer.” The directory in which the program was placed is found, and the program is clicked. You can now log into the Streamspin system and start using your services.

## Installing Programs on Mobile Devices

Installation on a real device is very similar to installation on the emulator. The only difference is that the device emulator does not need to be installed. Make sure that the *ActiveSync* is running and that the device is in its cradle. If the .Net CF 2.0 End User Redistributable has already been installed on the emulator, one simply goes to “Add/Remove Programs” in “Tools” via the *ActiveSync* and chooses the framework. If it has not been installed, the procedure from the previous section should be followed. The actual program installation is performed as presented in the previous section.

## References

- [1] .Net Compact Framework 2.0 Redistributable.  
<http://www.microsoft.com/downloads/details.aspx?FamilyID=9655156b-356b-4a2c-857c-e62f50ae9a55>, Jan 2007.
- [2] Windows mobile tools.  
<http://msdn.microsoft.com/windowsmobile/downloads/tools/install/default.aspx>, Jan 2007.
- [3] Jürgen Scheible, Matti Sillanpaa, Charaf Hassan, Marcos Katz, Christian Jensen, Paul Coulton, Olli Silven, Stephan Rein, and many more. *Mobile Phone Programming and its Application to Wireless Networking*. ISBN: 978-1-4020-5968-1. Springer, due June 2007.