1 Introduction

SimpleWave is a very simple, basic utility to keep the local startup harddisk on a number of identical clients up-to-date with a remote master on a file-server or on another local storage medium. It does not provide any protection against moving or deleting files and folders, but can regularly replace any files that are missing or have been changed. SimpleWave is just a distribution tool.
SimpleWave uses some basic features provided by the system software of System 7 and later. The target audience are lab maintainers, not the "normal" end-user.

Do you have to maintain the Macintosh computers in a lab? What a job! All those friendly users (students!) who add funny extensions and sounds or put games on the harddisk but make some room first by deleting "unnecessary" software!

> <recognize it? Please take a break to relieve your stress… >

I found myself in the same situation with 25 Classic II computers. We decided to use LikeWise from Apple. Which works well but requires full control of the client computers and was rather slow on a Phonenet cabled network. The whole process lasted three hours and was repeated every three to four weeks. When 45 new LC475 computers were bought we had to look for another solution because it all would have taken too much time. So we looked at some other (commercial) packages floating around. But they were either too much of a hassle to set up or they left some control to the user (a.k.a. privacy). And like you and I know, users of public computers have no rights nor privacy. :-)

A utility designed to synchronize a portable mac with a desktop computer could have been used but these are not transparent to the user, nor designed to be used with a master disk over a network link. For example, these utilities usually synchronize a file if the modification date is different.
Other requirements are the ability to save and restore the Macintosh name when replacing the system file, and other such specialized tricks. And most such utilities won't do this or restore the icon and window positions.

These utilities are designed to replace older copies with the newest one, while our problem is the reverse -- we want to maintain the old copies on the master disk, removing any files that have been changed by the user.

This made me look into an easy solution I could write myself. And do it with self-contained code, not an AppleScript solution requiring megabytes of memory and harddisk space. I started writing it and found I was able to make it work. SimpleWave is a background-only application which synchronizes the client computer's startup disk with a master folder without user interaction and in the background while the user continues working.

The basic principle is that an AppleShare file-server holds a master copy of the complete startup harddisk. SimpleWave logs onto this server and synchronizes the local startup harddisk with the master copy on the remote disk. For use with portable Macs, SimpleWave is also able to synchronize the startup disk (internal disk of the portable) with an external one.
SimpleWave tries to be as intelligent as possible. This means you only need to enter the basic settings once and you don't need to enter lists of files to skip or special instructions for individual files.

It will become more clear in the following chapters, exactly what SimpleWave does and how to set it up.
It's rather simple…