ReCycle!

THE ULTIMATE TOOL FOR SAMPLED GROOVES

Introduction

MIDI communication in ReCycle for Macintosh is handled by OMS, the Open MIDI System. This ensures that ReCycle will fit into your current MIDI System.

Do I Need to Install OMS?

You only need OMS in the following situations:

• **If your sampler *requires* MIDI communication with ReCycle.**
• **If, for one reason or another, you don't want to use SCSI for sample data transfer.**

OMS Documentation included!

Included in this package, you will find the full OMS documentation. This document is the complete OMS manual, in electronic format.

Installing OMS

This section is for those of you who don't already have the latest version of OMS installed on your computer. In this text we assume the following:

• **You have *one* MIDI interface connected to one of the serial ports on your Macintosh.**
• **You have no MIDI Patcher in your system.**

If you don't fit the above description setting up OMS is slightly more complicated. Please refer to the OMS documentation.

Setting Up

1. **Connect the MIDI Interface to your computer.**
   If you have a multi-port interface, there are probably a number of additional steps you need to perform at this point to make it work properly with your computer (install software, set switches etc). See the documentation that came with the MIDI interface for details.

2. **Connect the sampler to your interface, both ways!**
   For ReCycle to work, the MIDI Out on the sampler must be connected to a MIDI In on the interface, and the MIDI In on the sampler must be connected to a MIDI Out on the interface.

3. **Turn on or activate the interface, if needed.**

4. **Turn on your MIDI system.**

Installing OMS

1. **Locate the OMS Installer file and double click on it.**

2. **Follow the instructions on screen.**

For more information on the OMS installation, see the OMS documentation included in this package.

Launching OMS Setup

After installation, you have a new application on your hard disk, called OMS Setup.

1. **Double click on the OMS Setup application.**

OMS Setup

2. **If the following dialog box appears, we recommend that you disable AppleTalk and make sure your interface is active.**
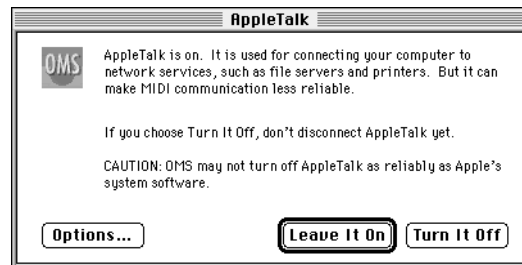
The most common reasons for using AppleTalk are:

• **You have a printer connected to the Printer port.**
• **You are using file sharing with other Macintoshes.**

See the OMS documentation for more information.

3. **If you have chosen to turn off AppleTalk, yet another dialog box appears. Follow the instructions and click OK.**
You can later activate AppleTalk again from the Chooser, if you need it.

4. **Follow the instructions on screen until you have a Studio Setup window with at least a symbol of your MIDI interface.**
Possibly, OMS has also detected all your connected equipment and displays symbols for it in the window.

Setting up OMS for ReCycle

This applies whether you just installed OMS or whether you already had it installed in your computer.

Defining your sampler as a Device

If your sampler is not already defined in the OMS Setup window, you need to do this manually.

1. **Launch the OMS Setup application.**
Your current OMS Setup appears.

2. **Click on the interface symbol, to select it.**
In the example below, a standard MIDI interface is selected.

3. **Select New Device from the Studio menu.**

4. **Set up the Manufacturer and Model fields for your specific sampler.**
OMS doesn't "know" about all the different samplers that exist, so for some you have to specify "Other" as the Model, and type in the name in the Name field.

In the example below, an S2800 is specified in this way.
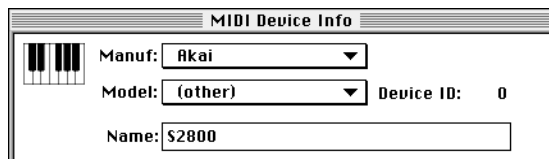
Setting the Port number for Multi-port interfaces

If you have a multi-port interface, you need to specify to which port the sampler is connected:

1. **Select a port number by clicking it.**

2. **Type the number of the port pair to which that MIDI device is connected.**

3. **Press [Return].**

In this example, the S1000 is connected to Port 3.

4. **If you prefer another icon for the device (this is purely a cosmetic decision), click on the Icon, select a new one and click OK.**
   ReCycle does not require any specific setting for all the remaining options in this dialog box, so...

5. **Click OK to close the dialog box.**

You should have a setup that looks something like this for a regular MIDI interface (in this case an S3000 on the Modem port):
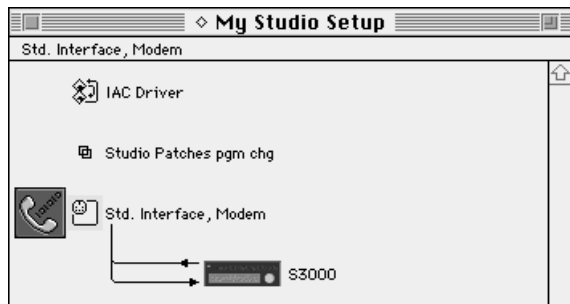
...and something like this for a multi-port interface:
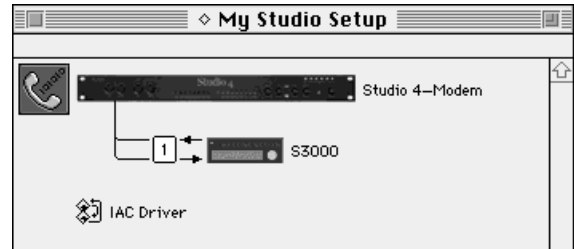
! **If the sampler is connected to a MIDI Patcher, make sure the Patcher's "Default Program" allows you to have two-way communication between the computer and the sampler. See the OMS documentation for more information about Patchers.**

Making the OMS Setup Current

1. **From the File menu, select "Save".**

2. **If a file dialog box appears, specify a name and location and Save the file.**
   The only reason you will need this file is if you want to change your setup at a later time.

3. **Quit OMS Setup.**

Selecting the Sampler and testing MIDI communication

To make sure OMS is set up properly, you should test communication between ReCycle and the sampler. This is done using the Verify function:

1. **In ReCycle, pull down the Edit menu and select "Sampler Settings".**
   The Sampler Settings dialog appears.

2. **Pull down the Sampler pop-up menu and select the sampler.**
   If the specific sampler isn't available on the pop-up menu, you need to add it to the Sampler List, as described in the main documentation.

3. **Click the Verify button in the lower part of the dialog.**
    ReCycle checks the connection to the sampler.

4. **Check the icon next to the Verify button.**
    If the icon is a green check mark, communication with the sampler is properly established. A red cross icon means that communication failed, and you need to check your settings.

How ReCycle interacts with OMS

This section describes how ReCycle interacts with OMS. Use this information together with the OMS documentation to decide how you should set up your system.

➜ **ReCycle requires two-way communication with the sampler. In other words, the MIDI Out on the sampler must be connected to a MIDI In on the interface, and the MIDI In on the sampler must be connected to a MIDI Out on the interface.**

➜ **When you launch ReCycle, it checks MIDI communication with all samplers on the Sampler List.**
   If a sampler cannot be found properly, ReCycle will tell you this.

➜ **When transmitting and receiving, ReCycle uses the System Exclusive ID setting defined in the Sampler Settings dialog in ReCycle.**
   The Device ID setting in OMS is of no importance.

➜ **If you have more than one sampler of the same model, they must be set to different Device IDs.**

➜ **If you use a MIDI Patcher, please note that ReCycle never switches programs in it. Instead ReCycle just uses the Patcher configuration that happens to be active at the moment. Therefore we recommend that you set things up so that the "Default Patch" for the Patcher allows for two-way communication between the Sampler and the computer. Otherwise you have to manually switch in the correct Program in the Patcher before using ReCycle.**

Requirements and Support

ReCycle supports all models of SampleCell both on the Macintosh and Windows platforms.

Since ReCycle "only" creates SampleCell Instrument and Sample files which it saves to your computer's hard disk, you do not need to have either MIDI or SCSI installed to use ReCycle with a SampleCell card. OMS is not required either.

Installation

Follow all the installation instructions in the SampleCell documentation. Since ReCycle only saves SampleCell Instruments to your computer's hard disk, you actually don't even have to have the SampleCell card installed to be able to use ReCycle.

Sampler Details

Documents Created

ReCycle saves the SampleCell audio as Multisample Instrument files together with a number of sample files, all in the same folder.

➜ **SampleCell for the Macintosh saves files in the Aiff and SD2 formats.**

➜ **SampleCell for Windows saves files in the Wave (WAV) format.**

SampleCell I and II (Macintosh)

ReCycle for Macintosh can be used with either of the two types of SampleCell cards for Macintosh, I and II. But, the Instruments ReCycle creates require the SampleCell II editor to be loaded.

! **SampleCell I is limited to loading 20 samples into one Instrument. Therefore, you can not use loops with more than 20 slices with a SampleCell I card!**

Preferences (Macintosh)

In the SampleCell Macintosh Preferences dialog you will find a setting called "Automatically remap instruments in a bank after adding an instrument".

! **This preference must be turned off, or the first slice in a loop might have its tuning changed!**

Loop Settings

ReCycle will add Loop markers at the beginning and end of the loop if Transmit As One Sample is turned on. To make a sample actually loop, the only thing you have to do is to turn on looping in the SampleCell editor. If you know you want looping to start with, set up a Template Instrument with looping turned on.

Templates

With SampleCell, the mapping of samples on "the keyboard" is *not* read from the templates (due to the way key ranges are handled in SampleCell). In the Instruments that ReCycle creates, the first sample is always put on the key C1.

SampleCell Tuning Parameters

The SampleCell editor allows you to perform some very powerful editing to the entire Instrument and to the samples within it. However, there is one parameter which doesn't really behave as you might expect.

The tuning parameter in the Miscellaneous group of parameters for an Instrument doesn't really tune a sample, instead it shifts the MIDI input up or down along the "keyboard". This means that instead of changing the pitch of all the slices in a loop, it will make the MIDI file play the wrong slices in the loop.

If you want to tune the slices in a loop you have two options:

*   **Either go into the key map and set the tuning individually for each slice in the loop, or...**
*   **Map a modulation parameter to pitch and use that to change the pitch equally for all sounds in the Instrument.**
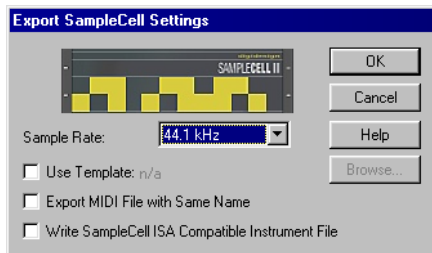
Sample Rates

SampleCell supports any sample rate, so no conversion is ever required with this instrument.

Stereo Support

SampleCell supports stereo files.

About ISA compatible files (Windows Only)

ReCycle can save files compatible with the older ISA-based SampleCell cards. Simply tick the "Write SampleCell ISA Compatible Instrument File" box before clicking OK,

Requirements and Support

In this chapter we describe ReCycles support for all Akai samplers in the S1000, S2000, S3000, and CD3000 series, including all "XL", "PB" and "i" variations. In this manual we refer to all the models in the 2000 and 3000 ("S" or "CD") series as "the S3000".

> **!** **Support for the Akai S5000/S6000 series is described separately in the next chapter.**

You need the following:

➜ **The required operating system for your sampler:**

Model	Operating System
S1000	4.40 or later.
S1100	4.30 or later.
Other	2.00 or later.

For MIDI Transfers:

➜ **A MIDI interface and two MIDI cables.**

➜ **For MIDI on the Macintosh you need OMS (included with ReCycle).**

For SCSI transfers

➜ **A SCSI card.**
This applies to Windows PCs and newer models of Macintosh computers.

➜ **A SCSI cable.**

It makes no difference to the functionality of the program whether you set up a MIDI or SCSI connection. The only difference is that SCSI transfers are much faster.

Not all sampler models come with SCSI built in, so you might need to add a SCSI card to your sampler.

> **!** **Only the following models support SCSI communication with ReCycle under Windows: S2000, S3000XL, S3200XL and CD3000XL. This is because the SCSI drivers in Windows only work with devices that at all times reply correctly to a SCSI 2 Device Inquiry message.**
> **If you have any other Akai sampler model, you are restricted to MIDI transfers.**

> **!** **There are some possible problems with SCSI transfers between Macintosh computers and the S1000/S1100. See page 13 for details.**

Which should I use – SCSI or MIDI?

If you are using Macintosh

- **If you have a Macintosh computer without SCSI, you have no choice. MIDI is your only option.**
- **If your model has built in SCSI or you have a SCSI card installed, we recommend that you use this. It is much faster than MIDI.**

If you are using Windows

- **If you have a PC computer without SCSI, you have no choice. MIDI is your only option.**
- **If you don't have one of the Akai sampler models for which SCSI under Windows is supported (see page 10), again, using MIDI is your only option.**
- **If you have a Windows compatible SCSI card in your computer, and your sampler supports SCSI transfers under Windows, we recommend that you use that.**

Installation

MIDI Connections

If you want to use MIDI, proceed as follows:

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

SCSI Connections

Akai samplers only have one SCSI connector. If you have more than one Akai sampler, you need a SCSI splitter cable or box. This will allow you to connect all units to the computer at the same time.

! **To be able to set up a system with more than one Akai Sampler you need to remove termination in all samplers but one. Contact a qualified Akai Service centre.**

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➜ **Always make all connections with power on all units turned off!**

➜ **Use high quality SCSI cables! The shorter they are, the better.**

➜ **The total length of all SCSI cables should never exceed 6 meters (20 feet).**

➜ **The devices at the ends of your SCSI chain must be terminated!**
Akai samplers have terminators built in, but these can be removed if needed (contact an Akai service centre for more info).
Macintosh computers and SCSI cards for PC also have termination built in, but this should under no circumstances be removed.
If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➜ **The computer should always be at one end of the SCSI chain of devices.**

➜ **Set all devices to different IDs before turning on power!**
Akai samplers are normally set to 6, but this can be changed.
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 *and* 7.
PC SCSI cards are normally set to ID 7.

➜ **Always turn on the computer last, after all other devices have finalized their startup processes.**

➜ **Always switch on all devices. If some device is not turned on, you may lose data.**

Windows SCSI Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Making Sampler System Settings

1. **Make sure you have the latest operating system for your sampler. ReCycle may not be able to communicate with the sampler if you don't have a current version.**
New operating systems can be downloaded from Akai's Web site.

! **Operating System updates for Akai samplers might be installed inside your sampler or arrive on a floppy disk (which can be copied to a hard disk). If you have your operating system on a floppy disk, this disk must always be inserted into the drive when you turn on the sampler.**

2. **Turn on the sampler. If it is loading the operating system from the floppy, let it finish loading everything before turning on any other devices.**

Setting MIDI System Exclusive IDs

For ReCycle to automatically recognize samplers via MIDI (using the "Find" or "Find All" functions), you need to make sure that the sampler has a "MIDI Exclusive Channel setting" of 1 to 16 and not higher:

➜ **The parameter is called "MIDI EXCLUSIVE Channel" or "MIDI Sysex Chan", depending on the sampler model.**
Consult the sampler documentation for details.

Setting SCSI IDs

The Akai samplers are normally set to SCSI ID 6. If you only have the sampler connected via SCSI, this will work fine. If you have other peripherals, or more than one sampler connected via SCSI, you need to check that all devices are set to different IDs.

The SCSI ID of an Akai sampler is set with the parameter called "local SCSI ID" (S2000 and S3000 series) or "S1000/1100 SCSI ID".

!   **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again. Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).**

Launching and Setting Up OMS (Macintosh only)

Turn to page 1 and set up OMS as described there.

Sampler Details

Stereo Support

ReCycle supports stereo file transfers to/from all supported Akai models both via MIDI or SCSI.

Transmitting

When you Transmit a sample to an Akai sampler, ReCycle always creates new Samples, Keygroups and a Program to put it all in.

Templates

If you use Templates (as described in the printed manual), ReCycle copies all settings in the Template Program to the Program it creates.

The lowest note number of the first keygroup in the template Program (the Keygroup furthermost to the left on the "keyboard") is used for the first sample ReCycle transmits. All other samples are positioned chromatically upwards.

If you want to use templates to position your ReCycle samples on a certain part of the "keyboard", you might create a Program in your sampler, with only one Keygroup in, positioned where you want the first sample. You could even have a number of such dummy Programs on your sampler startup disk, which would allow you to use the Template pop-up menu in the Transmit dialog to simply select where on the "keyboard" your ReCycled samples will appear.

Playback Modes

When you slice a sample, we recommend that you set the samples to "PLAY TO SAMPLE END" (to ensure it doesn't loop and to make sure the entire sample plays). This can be done either for an individual sample or as a setting in the Keygroup. See your Akai sampler manual for more information.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping (this is probably most useful when you have Transmit As One Sample turned on). If you know you want looping to start with, set up a Template Program with looping turned on.

Keygroups

The Slices are loaded into one keygroup each. By using "Edit One Key-group" or "Edit All Keygroups" it is very easy to get creative with the Akai samplers.

- **In "All" mode you might for example mimic a pitch shift by changing the tuning of all samples. Or you might change the Decay of the sounds by altering all keygroups' envelopes.**
- **In "One "mode you can pitch different samples individually or set them to different Outputs, panning etc.**

S1000/1100 – Macintosh Pitfalls

Due to incompatibility between the Macintosh and Akai S1000/S1100 SCSI implementations, SCSI communication between ReCycle and these samplers may not work reliably on all Macintosh models.

Since it is impossible to tell whether SCSI communication will work for each and every Power Macintosh model, we think you should try it - only experimentation will tell if things work.

! **It is very unlikely that this problem will cause any permanent damage to your equipment. Still, Propellerhead Software does not take responsibility whatsoever for lost data or damaged equipment!**

How do I know if it works?

Some transfers will almost certainly work, some time. If a transfer fails, ReCycle will often tell you so. Another indication may be that the system hangs indefinitely during a transfer. Technically, nothing is actually "broken", it is just that the two machines are waiting for each other, and will do so for an infinite amount of time.

Slow transfers

If you have many samples (more than one hundred) in your Akai S1000/S1100, SCSI transfers are very slow. Do not confuse this with a "hung" system.

In case of transfer problems

Even if you have followed the general SCSI guidelines above, there might be extreme situations where you could possibly run into problems with SCSI. If the computer freezes, as a result of communication problems during a transfer to the sampler, proceed as follows:

1. **On the sampler, make a "Save Entire Volume" to new empty floppy disks. Do not overwrite earlier disks and do not save to hard disk, since the data you save now may be corrupted.**

2. **Check through the Programs in the sampler and delete those that didn't get transferred accurately. Check that the remaining Programs seem to be intact. Save to floppy again.**

3. **Restart the sampler and the computer, and try the transfer again.**

The only way to insure yourself totally against loss of important material is to Save on the sampler, as often as possible.

The Akai S5000/S6000 series differs from all other Akai sampler models in the respect how the samples are transferred between the sampler and the computer.

You use the Export Sound dialog on the File menu, where you export a program file (AKP) together with the separate audio files. These files can be transferred to your sampler using one of the following two methods:

➜ **By using the application "ak.Sys".**
This is described below.

➜ **By transferring the files via a removable media.**
This is described later in the chapter.

About ak.Sys

This is an application developed by Akai that enables direct file transfers between your S5000/S6000 and your computer via USB. This is the most convenient method of transferring files between the sampler and your computer (i.e ReCycle).

➜ **The ak.Sys software features a "browser" that facilitates direct access to your S5000/S6000 sampler (and any drives connected to the sampler).**

➜ **Items can simply be dragged from disks shown in the browser into the sampler's memory for quick loading.**
Also, a sample's 'properties' may be changed directly in the browser (i.e. loop mode, pitch and tuning).

➜ **ak.Sys is available for both MacOS and Windows.**

➜ **The program requires that a USB interface card is installed in your S5000/S5000 and that your computer also has a USB interface.**
A USB card for your S5000/S6000 is included with ak.Sys, and USB is standard on recent PC and Macintosh models (you can install USB cards on most older models).

Using ReCycle with ak.Sys

ReCycle can export S5000/S6000 Program files (AKP) together with the audio files which can be loaded in ak.Sys.

Proceed as follows:

1. **Open the Export Sound dialog on the File menu.**

2. **Select "S6000 Program File" from the Type pop-up menu.**
The S5000 uses the same format.

3. **Select a destination for the exported files.**
If the loop to be exported has been sliced for tempo changes, it is a good idea to export to a folder on the disk, for easier handling of the separate wave files that will be created.

4. **Click Save.**
The Export Settings dialog opens.

5. **Make sure "Export MIDI file with Same Name" is ticked if the exported file has been sliced for tempo changes.**

6. **Click "Export".**

Three types of files will be exported (given you have chosen to export a MIDI file in step 7):

➜ **A Program file with the extension *.akp.**

➜ **Audio files in the Wave format, one for each slice.**
If "Transmit as One Sample" is ticked on the Process menu, only a single wave file will be exported.

➜ **A MIDI file.**
This file should be used in your sequencer to play the slices in the loop.

From here, please refer to the ak.Sys documentation for specifics about loading the files into the program.

Transferring files without using ak.Sys

Without the ak.Sys application, it is not possible to transfer files directly to the sampler via SCSI or MIDI. You use the same basic method in ReCycle, i.e. using the Export Sound dialog, but the resulting files have to be transferred to disk or some other media, and then be "manually" moved to a compatible media drive connected to the sampler.

➔ **The file format used by S5000/S6000 is MS-DOS, and the native audio file format is Wave.**
This enables both Windows and MacOS users to format disks that can be read by these samplers.

! **Macintosh computers can read and format MS-DOS disks, and also mount PC SCSI disks.**

➔ **The recommended method is to use a removable disk media, for example Zip, Jaz or MO.**
You could of course use ordinary floppy disks as well, or an external hard drive. In the former case, you wouldn't need an external drive at all (given that your computer has a built in floppy drive).

The setup should preferably comprise two removable media drives of the same type. One is connected (or built in) to your computer, the other is SCSI connected to the sampler. To transfer files is then simply a matter of moving the disk from one drive to the other. If you only have access to one external drive (and you do not have a built in drive of the same type), you will have to swap the drive between the two devices.

! **Never "hot swap" SCSI devices! Make sure all devices are switched off before disconnecting or connecting SCSI cables.**

! **SCSI connecting a S5000/6000 sampler to a Mac or PC to share a disk drive is definitely _not recommended_! Please refer to Appendix D in the Akai S5000/S6000 Operator's Manual for more details.**

The following steps describe how you can transfer files between ReCycle and the S5000 or S6000 sampler without using ak.Sys.

1. **If you are planning to use an external SCSI drive, make sure your drive is properly connected and can be "found" by your computer**

2. **Format whatever media you intend to use to transfer the files.**
You must use the MS-DOS file format!

3. **Open the Export Sound dialog on the File menu.**

4. **Select "S6000 Program File" from the Type pop-up menu.**
The S5000 uses the same format.

5. **Select the destination for the exported files.**
If the loop to be exported has been sliced for tempo changes, it is a good idea to export to a folder on the disk, for easier handling of the separate wave files that will be created.

6. **Click Save.**
The Export Settings dialog opens.

7. **Make sure "Export MIDI file with Same Name" is ticked if the exported file has been sliced for tempo changes.**

8. **Click "Export".**

Three types of files will be exported (given you have chosen to export a MIDI file in step 7):

➔ **A Program file with the extension *.akp.**

➔ **Audio files in the Wave format, one for each slice.**
If "Transmit as One Sample" is ticked on the Process menu, a single wave file will be exported.

➔ **A MIDI file.**
This file should be used in your sequencer to play the slices in the loop.

Loading the Exported Files

Once you have saved the files to disk, and made the necessary connections you can load the Program file and the associated samples in the normal way.

Refer to Appendix C in the Akai S5000/S6000 Operator's Manual for details

Requirements

You need the following:

➜ **The required operating system for your sampler:**

2.10 or later is required for the latest version of ak.Sys (1.50). New operating systems can be downloaded from Akai's Web site.

➜ **For ak.Sys, you also need to have a USB card installed in your sampler, and a USB cable connected between your sampler and your computer.**

➜ **Without ak.Sys, you need some means of transferring files between your computer and the sampler (as outlined above).**

S5000/6000 Details

Keygroups

The Slices are loaded into one keygroup each.

Templates

Templates are not supported.

Requirements and Support

ReCycle supports the Roland S-760. You need the following:

➔ **S-760 operating system 2.24 or later.**

➔ **A MIDI interface and two MIDI cables.**

➔ **For MIDI on the Macintosh you need OMS (included with ReCycle).**

➔ **For SCSI transfers you need a SCSI cable.**
It makes no difference to the functionality of the program whether you set up a SCSI connection or not. The only difference is that SCSI transfers are *much* faster.

➔ **Your S-760 might not come with SCSI built in, so you might need to add a SCSI card to it.**

Macintosh

! **SCSI transfers require both SCSI and a two-way MIDI connection on the Macintosh!**

➔ **Multiple instances of the S-760 may cause ReCycle to not be able to automatically find any of the samplers!**
The problem occurs if you have two or more instances of the S-760 connected via MIDI, and one of these is also connected via SCSI. If you have connected two or more S-760 samplers in this way, you have to add the samplers manually.

Windows

! **The S-760 does not support SCSI transfers under Windows. This is because the SCSI drivers in Windows only work with devices that at all times reply correctly to a SCSI 2 Device Inquiry message. Unfortunately, the S-760, as of this writing, doesn't, which means that you are restricted to MIDI transfers when using a Roland S-760 with ReCycle for Windows.**

Installation

MIDI Connections

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

SCSI Connections (Macintosh Only)

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➔ **Always make all connections with power on all units turned off!**

➔ **Use high quality SCSI cables! The shorter they are, the better.**

➔ **The total length of all SCSI cables should never exceed 6 meters (20 feet).**

➔ **The devices at the ends of your SCSI chain must be terminated!**
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➔ **The computer should always be at one end of the SCSI chain of devices.**

➔ **Set all devices to different IDs before connecting and turning on power!**
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 and 7. The S-760 is normally set to ID 7 so this needs to be changed from the front panel!

➔ **Always turn on the computer last, after all other devices have finalized their startup processes.**

➔ **Always switch on all devices. If some device is not turned on, you may lose data.**

Making Sampler System Settings

1. **Make sure you have the latest operating system for your sampler. ReCycle may not be able to communicate with the sampler if you don't have a current version. If in doubt, contact your dealer.**

2. **Turn on the sampler. Let it finish booting.**

3. **On the S-760, press the Mode button and select "System Mode". Press the value button twice to get to the System menu.**

4. **If you want to use the sampler with SCSI, select "SCSI" and press the Value button to enter the SCSI menu.**
   SCSI communication with this sampler is only supported for Macintosh computers!

5. **Locate the "S-760 Self SCSI ID" parameter and change it if needed.**
   Make sure it is not set to 0 or 7 (since these numbers are occupied by your computer). Also make sure that this setting is not set to the same ID as any other device connected to the SCSI bus.

6. **Press the Value button to exit, select "MIDI" and press Value again to enter the MIDI menus.**

7. **On the MIDI menus make sure that "MIDI Out/Thru" is set to Out, and that "Exclusive RX" is set to On.**

8. **Press the Mode button, select "Performance" and press the Value button again to enter Performance Play mode.**

9. **Turn on all other computer peripherals and let them start up.**

10. **Turn on your computer.**

! **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again. Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).**

Launching and Setting Up OMS (Macintosh only!)

Turn to page 1 and set up OMS as described there.

Sampler Details

S-760 must be in Performance mode!

! **The S-760 must always be in Performance mode when transmitting or receiving samples!**

Stereo Support

ReCycle supports transfers of stereo files to/from this sampler.

➔ **On the Macintosh, this can be done via MIDI or SCSI.**
   SCSI transfers require both a two-way MIDI and a SCSI connection.

➔ **For Windows users, only MIDI transfers are supported.**

Transmitting

When you Transmit a sample to an S-760, ReCycle always creates new Samples and Partials and a Patch to put it all in.

The default Volume ID for ReCycle Patches is "RCY". This can be changed before transmission, by editing the name in the Transmit dialog.

Templates

If you use Templates (as described in the printed manual), ReCycle copies all settings in the Template Patch to the Patch it creates.

The lowest note number in the template Patch (the Partial furthermost to the left on the "keyboard") is used for the first sample ReCycle transmits. All other samples are positioned chromatically upwards.

If you want to use templates to position your ReCycle samples on a certain part of the "keyboard", you might create a Patch on your sampler, with only one Partial/Sample in, positioned where you want the first sample. You could even have a number of such dummy Patches on your sampler startup disk, which would allow you to use the Template pop-up menu in the Transmit dialog to simply select where on the "keyboard" your ReCycled samples will appear.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to change looping, from OneShot to whatever mode is required for your application (this is probably most useful when you have Transmit As One Sample in ReCycle turned on). If you know you want looping to start with, set up a Template Patch with looping turned on.

Requirements and Support

ReCycle supports the Kurzweil K2000, K2500 and K2600 and their rack versions.

You need the following:

➔ **The K2000 needs operating system 3.01 or later. The K2500 needs operating system 2.80 or later, and the K2600 needs operating system 2.0 or later.**

➔ **A MIDI interface and two MIDI cables.**

➔ **For MIDI on the Macintosh you need OMS (included with ReCycle).**

➔ **To do SCSI transfers on a PC or on recent Macintosh models you need a SCSI card.**

➔ **For SCSI transfers you need a SCSI cable.**
It makes no difference to the functionality of the program whether you set up a SCSI connection or not. The only difference is that SCSI transfers are much faster.

➔ **MIDI transfers only support mono files.**
You need to use SCSI for stereo file transfers.

➔ **If you have multiple instances of the same Kurzweil model ReCycle may not be able to automatically find any of the samplers!**
The problem occurs if you have two or more instances (of the same model) connected via MIDI, and one of these is also connected via SCSI. If you have connected two or more Kurzweil models in this way, you have to add the samplers manually.

! **Note that SCSI transfers require both SCSI and a two-way MIDI connection!**

Installation

MIDI Connections

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

SCSI Connections - Basic Rules

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➔ **Always make all connections with power on all units turned off!**

➔ **Use high quality SCSI cables! The shorter they are, the better.**

➔ **The total length of all SCSI cables should never exceed 6 meters (20 feet).**

➔ **The devices at the ends of your SCSI chain must be terminated!**
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➔ **The computer should always be at one end of the SCSI chain of devices.**

➔ **Set all devices to different IDs before connecting and turning on power!**
Kurzweil samplers are normally set to ID 6 but this can be changed from the front panel if needed.
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 *and* 7. PC SCSI cards are normally set to ID 7.

➔ **Always turn on the computer last, after all other devices have finalized their startup processes.**

➔ **Always switch on all devices. If some device is not turned on, you may lose data.**

Booting Up and Making System Settings

1. **Make sure you have the latest operating system for your sampler. ReCycle may not be able to communicate with the sampler if you don't have a current version. If in doubt, contact your dealer.**

2. **Turn on the sampler and any connected external SCSI devices. Let the sampler finish booting.**

3. **Turn on your computer.**

! **If the computer refuses to boot (the computer "hangs" during start-up) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again. Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).**

Windows SCSI Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Checking the MIDI System Exclusive IDs

1. **Go to the MIDI Receive parameters page on your K2000/2500/2600.**

2. **Check the SysEx ID setting. If you have more than one K2000 they must be set to different IDs.**

Launching and Setting Up OMS (Macintosh only)

Turn to page 1 and set up OMS as described there.

Sampler Details

Transmitting

When you Transmit slices to a K2000/K2500/2600, ReCycle always creates new Samples and Keymaps and a Program to put it all in.

Templates

If you use Templates (as described in the printed manual), ReCycle copies all settings in the Template Program to the Program it creates.

The lowest note number of the first layer in the template Program (the layer furthermost to the left on the "keyboard") is used for the first sample ReCycle transmits. All other samples are positioned chromatically upwards.

If you want to use templates to position your ReCycle samples on a certain part of the "keyboard", you might create a Program on your sampler, with only one layer in, positioned where you want the first sample. You could even have a number of such dummy Programs in your sampler, which would allow you to use the Template pop-up menu in the Transmit dialog to simply select where on the "keyboard" your ReCycled samples will appear.

Loop settings

ReCycle does *not* set loop points at the beginning and end of each slice when transmitting to a Kurzweil sampler. If you want to loop a slice (probably most useful when using Transmit As One Sample), you need to set the loop points manually in the sampler and then turn on looping.

Requirements and Support

ReCycle supports the Ensoniq EPS, EPS-16+, ASR-10 and ASR-88.

You need the following:

➜ **The required operating system version.**
EPS needs operating system 2.49 or later.
EPS-16+ needs operating system 1.30 or later.
ASR-10/88 needs operating system 3.53 or later.

➜ **A MIDI interface and two MIDI cables.**
SCSI communication is not supported for Ensoniq samplers.

➜ **For MIDI on the Macintosh you need OMS (included with ReCycle).**

➜ **Stereo files are not suppoerted for the EPS/EPS16+.**

! **Ensoniq samplers cannot be automatically "found" by ReCycle! They will have to be added manually (see Operation Manual for details).**

Installation

MIDI Connections

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

If you are using a Multi-Port MIDI Interface or a MIDI Merger

Since the sampler is connected via MIDI only, all sample data is transmitted via MIDI, in very large portions. If you are using a Multi-Port MIDI interface or a MIDI Merger, the huge amount of data may prevent the interface/merger from working properly, i.e. communication with other connected MIDI instruments may be lost or disrupted. If you encounter such problems, we recommend that you connect the sampler via a single port MIDI interface, if possible.

About the Receive Dialog

The Receive dialog for Ensoniq samplers is different from other Receive dialogs. If you have two waves loaded that constitute the left and right channels of a stereo file, the Receive dialog gives you the option of receiving both channels or one of the waves (mono).

➜ **The two pop-up menus "Wave" and "Right Wave" will contain all currently loaded Waves (samples).**
1. **Select the wave you wish to load on the "Wave" pop-up.**

2. **If this wave is one channel of a stereo wave, select the corresponding (other channel) wave on the "Right Wave" pop-up.**

➜ **If you wish to use one of the waves only (or simply wish to load a wave that isn't part of a stereo sample) you select the wave on the "Wave" pop-up and set the "Right Wave" pop-up to "Default (Mono)".**

! **Note that it is possible to receive any two Waves as a stereo sample, so make sure you select the right combination.**

Making Sampler System Settings

1. **Make sure you have the latest operating system for your sampler. ReCycle may not be able to communicate with the sampler if you don't have a current version. If in doubt, contact your dealer.**

2. **Turn on the sampler. Let it finish booting before turning on other devices.**

3. **Among the sampler's System parameters, make sure "MIDI SYS-EX" is set to ON.**
   Use the "SAVE GLOBAL PARAMETERS" option to save this setting.

Launching and Setting Up OMS (Macintosh only)

Turn to page 1 and set up OMS as described there.

Requirements and Support

ReCycle supports:

- **The E-mu Esi-32 and Esi-4000.**
- **The EIV (E4), e-64, e-6400 and E-Synth, including all variations (provided they run the EOS operating system version 4.0 or later - see the note below!).**
- **Future samplers running the same operating system (EOS 4.0 or later) and using the same SCSI routines.**

! Note: Even though ReCycle supports all variations of the EOS 4.0 samplers, the program cannot automatically distinguish one model from another. Therefore, when ReCycle auto-detects an E-mu sampler running EOS 4.0, it will appear in the Sampler List as a generic "E-mu EOS Sampler". If you like, you can add the sampler manually, and specify the exact model.

You need the following:

➔ The required Operating System version:

Model:	Required Operating System:
Esi-32, Esi-4000	OS 3.00 or later.
E4, e-64, e-6400, E-Synth and all variations,	OS 4.00 or later.

➔ On the PC and for recent Macintosh models you need a SCSI card.

➔ A SCSI cable.

Communication between the computer and the sampler happens via SCSI only, which means that MIDI connections (and OMS on the Macintosh) are *not* required.

Connecting

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:

➔ Always make all connections with all units turned off!

➔ Use high quality SCSI cables! The shorter they are, the better.

➔ The total length of all SCSI cables should never exceed 6 meters (20 feet).

➔ The devices at the ends of your SCSI chain must be terminated!
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➔ The computer should always be in one end of the SCSI chain of devices.

➔ Set all devices to different IDs before connecting and turning on power!
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 and 7.
PC SCSI cards normally occupy the SCSI ID 7.

➔ The E-mu sampler is normally set to ID 5 but this can be changed from the front panel if needed.

➔ If your sampler has a "Mac on SCSI bus" or "Avoid Host on ID" setting, please activate this. If a certain SCSI Device ID can be selected, set it to the same number as your computer/SCSI card (normally 7).

➔ Always turn on the computer last, after all other devices have finalized their startup processes.

➔ Always switch on all devices. If some device is not turned on, you may loose data.

Booting Up

1. **Make sure you have the correct operating system for your sampler (see above).**
   ReCycle will not be able to communicate correctly with the sampler if you don't have a current version.

2. **Turn on the sampler and any connected external SCSI devices. Let the sampler finish booting.**

3. **Turn on your computer.**

4. **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again.**
   Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).

Windows Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Sampler Details

Receiving

Samples that you want to receive from your sampler are identified by name. Select the sample from the pop-up in the Receive dialog and click Receive.

Transmitting

Since more or less only the basic SMDI specification is used for communicating with E-mu samplers, some care must be taken when transmitting samples. Proceed as follows:

1. **On the sampler, select a Preset where you want to insert the samples.**
   The samples are always entered into the current Preset starting at the key C1. The transmitted samples will overwrite any existing mappings in the key range used. We recommend that you use an empty Preset.

2. **Check how many samples you will transmit, that is how many slices you currently have in your loop in ReCycle.**
   This is displayed on the Status Bar.

3. **In the E-mu sampler, find a range of currently unused sample numbers and enter the lowest of these in the Transmit dialog.**
   This range of unused sample numbers must accommodate all the slices you plan to transmit. If you for example plan to transmit 15 slices and enter the number 10, sample numbers 10 to 24 must be unused. If these sample numbers are not unused but rather "contain" samples, these will get overwritten!

4. **Enter a basic name for the samples.**

5. **Click Transmit.**

Templates

Templates are not implemented for E-mu samplers.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping in the sampler (this is probably most useful when you have Transmit As One Sample turned on).

Parameter settings

Since the samples are "injected" into the current Preset, no special parameter settings are made. You might want to manually adjust envelopes and other settings to make the slices play back as "transparently" as possible. Or, you might want to modify parameters to purposely change the sound!

Requirements and Support

ReCycle supports the Yamaha A3000 sampler. You need the following:

➜ **Operating System 2.00 or later.**

➜ **A MIDI interface and two MIDI cables.**

➜ **For MIDI on the Macintosh you need OMS (included with ReCycle).**

For SCSI Transfers

➜ **A SCSI card is required for Windows and newer model Macintosh computers.**

➜ **A SCSI cable.**

A MIDI connection is required. It makes no difference to the functionality of the program whether you set up a SCSI connection or not. The only difference is that SCSI transfers are *much* faster.

➜ **Multiple instances of the Yamaha A3000 may cause ReCycle to not be able to automatically find any of the samplers!**
The problem occurs if you have two or more instances of the A3000 connected via MIDI, and one of these is also connected via SCSI. If you have connected two or more A3000 samplers in this way, you have to add them manually.

Installation

MIDI Connections

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

If you are using a Multi-Port MIDI Interface or a MIDI Merger

If your A3000 is connected via MIDI only, all sample data is transmitted via MIDI, in very large portions. If you are using a Multi-Port MIDI interface or a MIDI Merger, the huge amount of data may prevent the interface/merger from working properly, i.e. communication with the A3000 may be lost or disrupted. If you encounter such problems, we recommend that you connect the A3000 via a single port MIDI interface, if possible.

SCSI Connections

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➜ **Always make all connections with all units turned off!**

➜ **Use high quality SCSI cables! The shorter they are, the better.**

➜ **The total length of all SCSI cables should never exceed 6 meters (20 ft).**

➜ **The devices at the ends of your SCSI chain must be terminated!**
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➜ **The computer should always be at one end of the SCSI chain of devices.**

→ **Set all devices to different IDs before connecting and turning on power!**
The Yamaha samplers are normally set to ID 6 but this can be changed from the front panel (with the "SelfID" setting on the Disk parameter pages).
Macintosh computers that use internal SCSI hard disks normally occupy IDs 0 and 7. PC SCSI cards normally occupy the SCSI ID 7.

→ **Always turn on the computer last, after all other devices have finalized their startup processes.**

→ **Always switch on all devices. If some device is not turned on, you may lose data.**

Booting Up

1. **Make sure you have the required operating system for your sampler. ReCycle may not be able to communicate with the sampler if you don't have a current version. If in doubt, contact your dealer.**

2. **Turn on the sampler and any connected external SCSI devices. Let the sampler finish booting.**

3. **Turn on your computer.**

! **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again. Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).**

Windows SCSI Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Making Sampler System Settings

1. **Go to the MIDI Receive parameters page on your A3000.**

2. **Check the Basic Channel (BasicCh) setting. If you have more than one A3000 they must have different Basic Channel settings.**

3. **Go to the MIDI Bulk page.**

4. **Make sure the Protect switch is Off.**

Launching and Setting Up OMS (Macintosh only)

Turn to page 1 and set up OMS as described there.

Sampler Details

Transmitting

When you Transmit Slices to an A3000, ReCycle creates new Samples and a Bank to put them all in. Just as when you load a Sample Bank from disk into A3000's memory, the Bank is initially deactivated.

! **To be able to play the Bank, you need to activate it in the current Program.**

Templates

Either a Sample or a Sample Bank can be used as Template (for more information about Templates, see the operation manual).

→ **If a Template Sample is used, a default Bank is created, and the parameter settings from the Template Sample are copied to all new samples created.**
The first sample will be mapped to the same key as the Template Sample (the "OrigKey" parameter), and the following samples will be mapped chromatically upwards.

→ **If a Template Bank is used, all settings in this Bank are copied to the created Bank.**
For the individual samples in the Bank, the first sample in the Template Bank is used as Template Sample.

Loop settings

ReCycle will put the loop points at the beginning and end of each Slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping for the Slices in the sampler (this is probably most useful when you have Transmit As One Sample turned on).

GENERIC
SDS

Requirements

! **Samplers accessed via the SDS protocol cannot be "found" by Re-Cycle, nor can the connection be verified! You have to add the sampler manually using the "Add Sampler" dialog. Verifying is done by testing the connection in normal use.**

ReCycle supports the generic SDS (Sample Dump Standard)) protocol for transferring audio samples via MIDI. This protocol may enable you to use ReCycle even if your sampler model isn't supported in the Sampler List (i.e the "Model" pop-up list in the Add Sampler" dialog):

➜ **Your sampler must support the SDS protocol - check your manual for information.**
If you don't know if your sampler supports SDS, you will have to connect your sampler (see following pages), add the Generic SDS "sampler" in the Sampler Settings dialog and try transmitting or receiving a sample to see if it will work.

In addition, you need the following:

• **A MIDI interface and two MIDI cables.**
• **For MIDI on the Macintosh you need OMS (included with ReCycle).**

! **Transfers of stereo samples is not supported by SDS.**

Connecting

MIDI Connections

1. **Connect a MIDI Cable from the MIDI Out on the sampler to a MIDI In on your computer.**

2. **Connect a MIDI cable from a MIDI Out on your computer to the MIDI In on the sampler.**

Sampler Details

Receiving

Samples that you want to receive from your sampler are identified by number. Use the editing facilities on your sampler to find out which number a certain sample has, type in this number in the Receive dialog and click Receive. Which number you should type depends totally on the sampler model. Some trial and error testing may be required to understand your sampler's numbering scheme.

Transmitting

When the SDS protocol is used for communicating with SDS samplers, some care must be taken when transmitting samples.

➜ **Samples are just transmitted, not inserted into a program (or whatever term your sampler model uses) in any way.**
Therefore there is no need to select a program before transmitting.

➜ **Exactly what happens with the transmitted samples depends on the particular sampler model - check the documentation for your sampler.**

Templates

Templates are not supported for SDS samplers.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping in the sampler (this is probably most useful when you have Transmit As One Sample turned on).

Requirements and Support

! **Samplers that may be compatible with the SMDI protocol cannot be "found" by ReCycle, nor can the connection be verified! Add the sampler manually using the "Add Sampler" dialog. Verifying is done by testing the connection in normal use.**

ReCycle supports the SMDI (SCSI Musical Data Interchange) protocol for transferring audio samples via SCSI. This protocol may enable you to transfer files between your sampler and ReCycle even if your sampler model isn't supported:

➜ **Your sampler must support the SMDI protocol - check your manual for information.**
It is not recommended that you connect a sampler to your computer via SCSI unless you know that it supports SMDI!

In addition, you need the following:

➜ **On the PC, and on recent Macintosh models you need a SCSI card.**

➜ **A SCSI cable.**

Communication between the computer and the sampler happens via SCSI only, which means that MIDI connections (and OMS on the Macintosh) are *not* required.

Connecting

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➜ **Always make all connections with all units turned off!**

➜ **Use high quality SCSI cables! The shorter they are, the better.**

➜ **The total length of all SCSI cables should never exceed 6 meters (20 feet).**

➜ **The devices at the ends of your SCSI chain must be terminated!**
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➜ **The computer should always be in one end of the SCSI chain of devices.**

➜ **Set all devices to different IDs before connecting and turning on power!**
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 and 7.
PC SCSI cards normally occupy the SCSI ID 7.

➜ **Set your sampler to use a suitable ID number if needed.**

➜ **If your sampler has a "Mac on SCSI bus" or "Avoid Host on ID" setting, please activate this. If a certain SCSI Device ID can be selected, set it to the same number as your computer/SCSI card (normally 7).**

➜ **Always turn on the computer last, after all other devices have finalized their startup processes.**

➜ **Always switch on all devices. If some device is not turned on, you may lose data.**

Booting Up

1. **Turn on the sampler and any connected external SCSI devices. Let the sampler finish booting.**

2. **Turn on your computer.**

3. **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again.**
   Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).

Windows Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Sampler Details

Receiving

Samples that you want to receive from your sampler are identified by number. Use the editing facilities on your sampler to find out which number a certain sample has, type in this number in the Receive dialog and click Receive.

Transmitting

When the SMDI protocol is used for communicating with a sampler, some care must be taken when transmitting samples. Proceed as follows:

➜ **Samples are just transmitted, not inserted into a program (or whatever term your sampler model uses) in any way.**
   Therefore there is no need to select a program before transmitting.

➜ **Exactly what happens with the transmitted samples depends on the particular sampler model - check the documentation for your sampler.**

Templates

Templates are not supported for SMDI samplers.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping in the sampler (this is probably most useful when you have Transmit As One Sample turned on).

ReCycle!
GENERIC SMDI

Requirements and Support

! **Samplers that may be compatible with the Extended SMDI protocol cannot be "found" by ReCycle, nor can the connection be verified! Add the sampler manually using the "Add Sampler" dialog. Verifying is done by testing the connection in normal use.**

About Extended SMDI

This protocol was developed by E-mu to facilitate sample transfers using the SMDI protocol with the added functionality of key mapping. This is not a standard as such (or as yet), but makes it possible for sampler manufacturers that support SMDI to easily adapt to the Extended SMDI protocol, with this added functionality.

This protocol may enable you to transfer files between your sampler and ReCycle even if your sampler model isn't supported:

➜ **Your sampler should support the "normal" SMDI protocol - check your manual for information.**
If your sampler supports SMDI, it is perfectly safe to try the extended protocol. But it is generally not recommended to connect devices via SCSI unless you know that they at least have this compatibility. Also, it is very unlikely that a sampler would support extended SMDI but not "normal" SMDI.

In addition, you need the following:

➜ **On the PC, and on recent Macintosh models you need a SCSI card.**

➜ **A SCSI cable.**

Communication between the computer and the sampler happens via SCSI only, which means that MIDI connections (and OMS on the Macintosh) are *not* required.

Connecting

General SCSI Rules!

SCSI is a high speed electrical interface, primarily designed to connect hard disks and other peripherals to personal computers. SCSI is not a regular computer network so there are severe restrictions on how many devices you can have connected, cable lengths etc.

! **Improper SCSI handling might cause permanent damage to your equipment. Please, always follow the few but important golden rules of SCSI to insure yourself against damaged equipment:**

➜ **Always make all connections with all units turned off!**

➜ **Use high quality SCSI cables! The shorter they are, the better.**

➜ **The total length of all SCSI cables should never exceed 6 meters (20 feet).**

➜ **The devices at the ends of your SCSI chain must be terminated!**
Follow the recommendations in your manuals about how to terminate your devices. If you set up with too many terminators, or a terminator missing, data transmission most probably won't work properly. In the worst case, one of your SCSI devices might get physically damaged.

➜ **The computer should always be in one end of the SCSI chain of devices.**

➜ **Set all devices to different IDs before connecting and turning on power!**
Macintosh computers and their internal SCSI hard disks normally occupy IDs 0 and 7.
PC SCSI cards normally occupy the SCSI ID 7.

➜ **Set your sampler to use a suitable ID number if needed.**

➜ **If your sampler has a "Mac on SCSI bus" or "Avoid Host on ID" setting, please activate this. If a certain SCSI Device ID can be selected, set it to the same number as your computer/SCSI card (normally 7).**

➜ **Always turn on the computer last, after all other devices have finalized their startup processes.**

➜ **Always switch on all devices. If some device is not turned on, you may lose data.**

Booting Up

1. **Turn on the sampler and any connected external SCSI devices. Let the sampler finish booting.**

2. **Turn on your computer.**

3. **If the computer refuses to boot (the computer "hangs" during startup) there's something wrong with the termination, cables or SCSI IDs. Go back and check everything again.**
   Try with less equipment connected (but don't forget – always terminate both ends of the SCSI chain!).

Windows Device check

When you launch Windows the first time after connecting the sampler via SCSI, it will ask you if you want to install a driver for it. Follow the procedure in the Windows Installation chapter in the printed manual.

Sampler Details

Receiving

With the Extended SMDI protocol, samples that you want to receive from your sampler are identified by name. Select the sample from the pop-up in the Receive dialog and click Receive.

Transmitting

When the Extended SMDI protocol is used for communicating with a sampler, some care must be taken when transmitting samples. Proceed as follows:

1. **On the sampler, select a program (or whatever term your sampler uses for a collection of samples and their settings) where you want to insert the samples.**
   We recommend that you use an empty program.

2. **In the sampler, find a range of currently unused sample numbers and enter the lowest of these in the Transmit dialog.**
   This range of unused sample numbers must accommodate all the slices you plan to transmit. If you for example plan to transmit 15 slices and enter the number 10, sample numbers 10 to 24 must be unused. If these sample numbers are not unused but rather "contain" samples, these will get overwritten!

3. **Enter a basic name for the samples.**

4. **Click Transmit.**

Templates

Templates are not supported for Extended SMDI samplers.

Loop settings

ReCycle will put the loop points at the beginning and end of each slice. To make a sample actually loop when you hold down the key, the only thing you have to do is to turn on looping in the sampler (this is probably most useful when you have Transmit As One Sample turned on).

Parameter settings

Since the samples are "injected" into the current Preset, no special parameter settings are made. You might want to manually adjust envelopes and other settings to make the slices play back as "transparently" as possible. Or, you might want to modify parameters to purposely change the sound!

What are SoundFonts?

SoundFont is a file format for storing wavetable synthesized sounds. The format is developed by E-mu Systems and Creative Technologies. It allows users to create and edit multi-sampled sounds, and play them back in wavetable synthesizers, typically on audio cards (e.g. Creative Technologies AWE-32, AWE-64 and Soundblaster Live!, Terratec EWS-64 and E-mu APS).

In broad terms, a SoundFont Bank consists of Presets, which contain references to one or several Instruments. Each Instrument in turn contain references to a number of Samples, complete with key and velocity range information. There are also several levels of articulation data (filtering, modulation settings, etc.). These are not affected when ReCycle generates SoundFont files, but they make it possible to change the sound in a SoundFont editor later on.

Requirements

There are no actual requirements for ReCycle to be able to export SoundFont files, but to make use of the files, you need the following:

➔ **A SoundFont compatible audio card with RAM installed.**

➔ **An application that can load the exported SoundFont file into the RAM on the audio card.**
If you are using a Creative audio card under Windows, you can load SoundFont banks using the AWE Control Panel application.

➔ **An application that plays MIDI files.**
This would typically be a software sequencer, like Cubase VST.

Installation

To install a SoundFonts compatible audio card, follow the documentation included with the card. Depending on the card, SoundFont editor and manager software may be included and installed - if not, you need to obtain and install these separately.

Using ReCycle with SoundFonts

When you have set up and sliced a loop in ReCycle (see the printed documentation), you export it as a SoundFont file using the following procedure:

1. **Select "Export" on the File menu.**
   The Export dialog appears, allowing you to specify a name and location for the resulting file.

2. **Select "SoundFont" on the Type pop-up.**

! **For Mac users we recommend that you tick the "Add Extension to Filename" option.**

3. **Click "Save" when you have named and specified a location for the file.**
   The Export Settings dialog opens.

4. **With the "Export MIDI file with Same Name" option ticked, click Export.**

Now, a SoundFont Bank file is created, together with a MIDI file. The SF2 file contains a single Melodic Preset, which contains a single Instrument. The Instrument contains all the slices (as separate samples), laid out chromatically with one sample per key, from key nr 36 (C1) and upwards.

5. **Use a SoundFont editor or bank manager program to load the SoundFont file into the RAM of your audio card.**
   See the documentation of the program for details.

6. **Open the generated MIDI file in a sequencer, and set it to play back to the MIDI synthesizer on the card, using your generated SoundFont Bank as sound source.**
   You will hear the original loop played back, but you will be able to change the tempo, remove or reorder individual slices, etc. You could also use the SoundFont editor software to manipulate individual slices in various ways.

Templates

Templates are not implemented for SoundFonts.

What are MixMan TRK files?

MixMan TRK (Track) files are a native file format of the MixMan Studio and Studio Pro applications, programs in which you create music by mixing and matching beats and loops, automatically adjusting their tempo in the process.

ReCycle can export loops as MixMan TRK files, which then can be imported into MixMan Studio, Studio Pro or other MixMan compatible applications.

Settings in ReCycle

When you set up the loop to export it as a MixMan TRK file, you should basically follow the steps in the example "Slicing for Tempo Changes" in the chapter "Example Applications" in the main ReCycle Operation Manual.

! **MixMan does not support stereo files! If you try to export a stereo file as a TRK file, a dialog appears allowing you to select either the left channel, the right channel or a mix of both channels as the basis for the exported file.**