SpriteDrive™
Sequence Converter
User's Guide

www.SpriteDrive.com

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1.0 OVERVIEW

1.1 Introduction

This user's guide has been designed to help you learn how to create custom sequence files for your SpriteDrive™ DMX32USB controller.

The SpriteDrive™ DMX32USB controller has the ability to operate as a stand-alone sequencer, requiring no DMX input signal. The DMX32USB controller has 496KB of flash memory for storage of sequence files. The sequence mode allows one pre-loaded sequence to be played back continuously.

To create custom sequences you will need to create a comma separated file (*.CSV). This can be done using a spreadsheet program or a text editor. Please refer to section 4.0 of this user's guide to learn how to create a correctly formatted comma separated file. You will then need the SpriteDrive™ Sequence Converter to convert the comma separated file into a custom sequence file (*.SEQ).

You will need the SpriteDrive™ Configuration Utility to load the sequence file in to your SpriteDrive™ DMX32USB controller. This can be downloaded from the SpriteDrive™ website.

1.2 System Requirements

The minimum system requirements for using the SpriteDrive™ Sequence Converter are:
- 10MB hard disk space.
- Intel Pentium® Class PC running Microsoft® Windows® 98SE/ME/2000/XP operating system.

2.0 INSTALLATION

2.1 Installing the SpriteDrive Sequence Converter

You will need to download the SpriteDrive™ Sequence Converter from the SpriteDrive™ website.
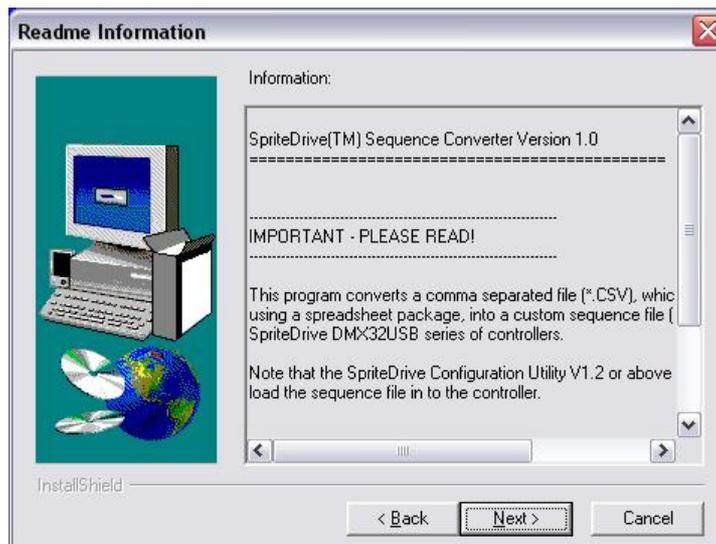
To install the utility, run the "Setup.exe" program to launch the Install Wizard, which will guide you through the installation process. If you do not have access to the Internet, we can provide the SpriteDrive™ Sequence Converter on CDROM.

Figure 2-1: Setup Welcome Screen

Click "**Next**" to continue.

The readme file for the sequence converter is then displayed. Take time to read this file as it contains important information about this version of the sequence converter.

Figure 2-2: Readme Information

Click "**Next**" to continue.

Select an installation directory for the SpriteDrive™ Sequence Converter. The default directory for installation is *C:\Program Files\SpriteDrive\SpriteDrive Utilities*.
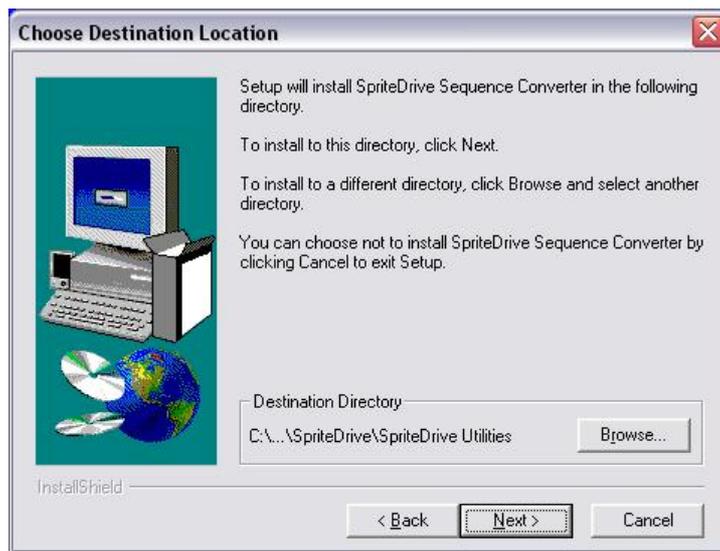

Figure 2-3: *Select the Installation Directory*

After specifying the directory, click "**Next**" to continue.

Select a program folder for the installation. The default folder is *SpriteDrive*.

Figure 2-4: *Select the Program Folder*
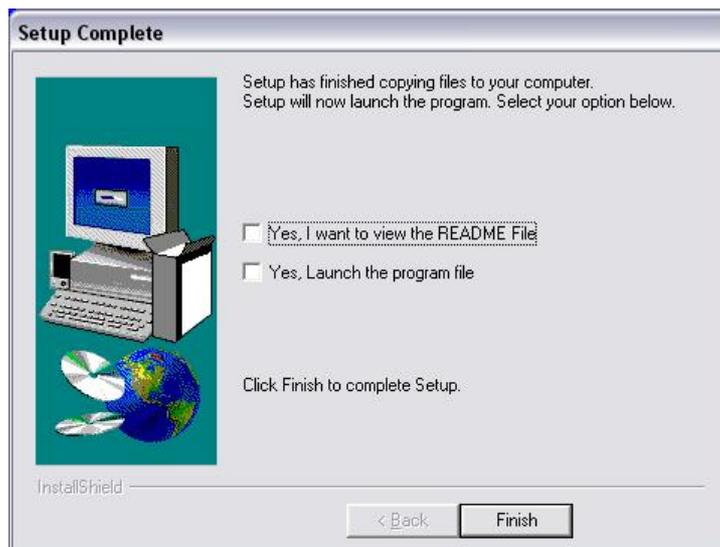
Click "**Next**" to continue.

The following screen launches the installation.

Figure 2-5: *Start the Installation*

Click "**Next**" to begin installing the SpriteDrive™ Sequence Converter.

Once the installation is successfully completed you will see the "Setup Complete" screen.

Figure 2-6: *Successful Installation*

Click "**Finish**" to complete the process.
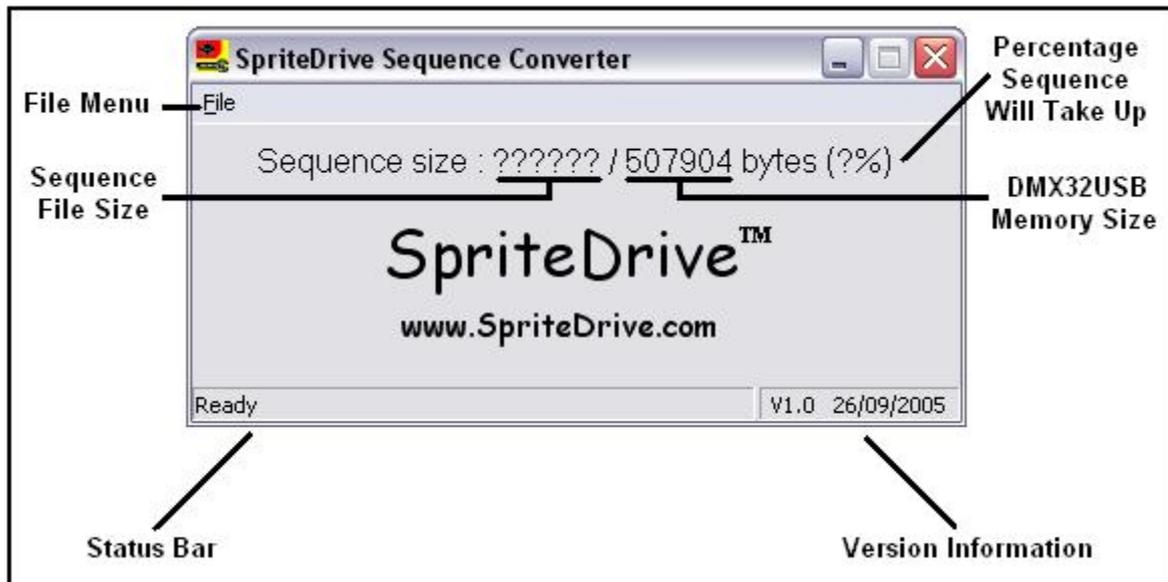
2.2 Uninstalling the Sequence Converter

Should you need to uninstall the SpriteDrive™ Sequence Converter, open the Windows Control Panel and launch "Add or Remove Programs". Select "SpriteDrive Sequence Converter" from the list of programs, click "Change/Remove" and follow the instructions to remove the program from your computer.

3.0 USING THE SEQUENCE CONVERTER

This section of the user's guide shows you how to use the SpriteDrive™ Sequence Converter to convert a comma separated file (*.CSV) into a sequence file (*.SEQ).

Once you have installed the SpriteDrive™ Sequence Converter, launch the program by clicking "Start → All Programs → SpriteDrive → SpriteDrive Sequence Converter" (assuming it was installed in the default directory).

Figure 3-1: The SpriteDrive™ Sequence Converter

- **File Menu –** Used to perform a conversion.
- **Sequence File Size –** Tells you the size of the last sequence file converted.
- **DMX32USB Memory Size –** How much memory is available in the DMX32USB controller for sequence storage. This value is fixed at 507904 bytes (496KB).
- **Percentage Sequence Will Take Up –** This is the percentage of the DMX32USB controller memory that will be taken up by the last converted sequence.
- **Status Bar –** Informs you of the status of the sequence converter.
- **Version Information –** Informs you of the version of the sequence converter and its release date.
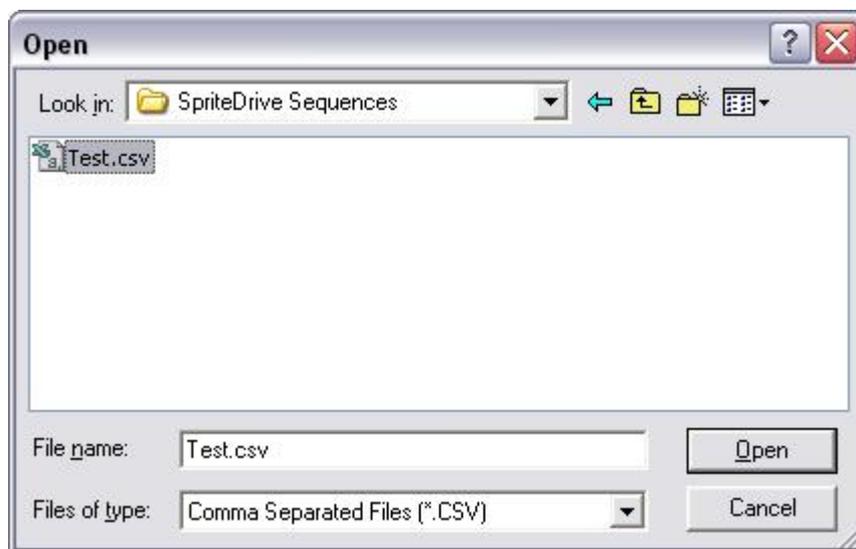
3.1 Converting a Comma Separated File

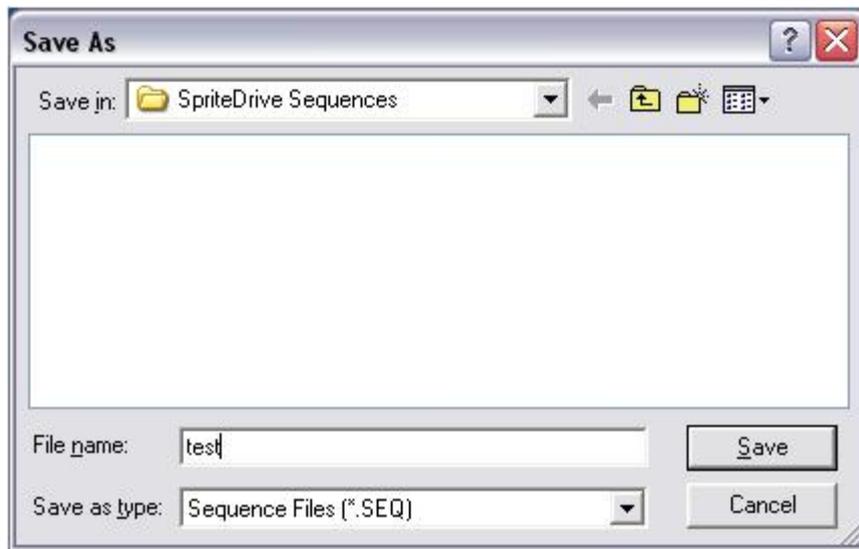To convert a comma separated file into a sequence file follow these steps:

1. Launch the SpriteDrive™ Sequence Converter.

2. Click on "File → Convert".

3. Select a correctly formatted comma separated file (*.CSV) and click "Open". (See section 4.0 of this user's guide to learn how to create a correctly formatted comma separated file).

4. Choose the destination and file name for the sequence file, and then click "Save".

5. The status bar will display "Converting Sequence File…"

6. After successful conversion of the comma separated file, the SpriteDrive™ Sequence Converter will display the size of the sequence file, as well as the percentage of the DMX32USB controller memory that this will take up. Note that a warning message will be displayed if the sequence file size exceeds the memory size of the DMX32USB controller.

The sequence file (*.SEQ) is now ready to be loaded into the DMX32USB controller using the SpriteDrive™ Configuration Utility.

4.0 HOW TO CREATE CUSTOM SEQUENCES

This section shows you how to create a comma separated file in the correct format so that it can be converted into a custom sequence file by the SpriteDrive™ Sequence Converter.

The easiest way to create a comma separated file is to use a spreadsheet program and save the file as a comma separated file, having the extension *.CSV (also known as "Comma Delimited", "Comma Separated Variables" or "Text CSV"). Alternatively if you do not have a spreadsheet program you can use a text editor to create a *.TXT file then rename it with the extension *.CSV.

4.1 CSV File Format

The CSV file format is such that each column represents a channel of the DMX32USB controller, and each row represents a step in the sequence.

You may want to look at the sample *.CSV files supplied with the SpriteDrive™ Sequence Converter to help you understand the format required. These can be found in the "Samples" subdirectory of the installation folder.

The CSV file must be structured as follows:

- It must be 33 columns wide. Columns 1 to 32 (A to AF) contain the values for channels 1 to 32 of the DMX32USB controller. This value must be an integer in the range of 0 to 255, where 0 is fully off and 255 is fully on.
  Column 33 (AG) contains the time delay between the steps. This delay is x times 12 milliseconds, where x must be an integer in the range of 1 to 255. For example 1 is equal to a delay of 12 milliseconds ($1 \times 12\text{ms}$) and 255 is equal to a delay of 3.06 seconds ($255 \times 12\text{ms}$). For longer delays simply duplicate the step of the sequence. The delay can be different for each step in the sequence. **All other columns must be blank.**

- It must start at row 1 and be no longer than 7695 rows. Each row represents a step in the sequence. Imagine each row as a snapshot of the channels at that moment in the sequence. **Any unused rows must be blank**.

The playback of the sequence is continuous, so the sequence file will loop back to the beginning once the end is reached.

The SpriteDrive™ Sequence Converter can only convert CSV files that are in the format described above. Entering data in a different format to this may result in incorrect operation of the sequence converter or incorrect sequences being generated.

The following diagrams show the required format of the comma separated file when opened in a spreadsheet program.

33 Columns (A to AG)

No more than 7695 Rows

	A	B	C	D	E	F	G	H
1	255	0	0	255	0	0	255	0
2	251	0	4	255	0	0	255	0
3	247	0	9	255	0	0	255	0
4	242	0	13	255	0	0	255	0
5	238	0	17	255	0	0	255	0
6	234	0	21	255	0	0	255	0
7	230	0	26	255	0	0	255	0
8	225	0	30	255	0	0	255	0
9	221	0	34	255	0	0	255	0
10	217	0	38	255	0	0	255	0
11	213	0	43	255	0	0	255	0
12	208	0	47	255	0	0	255	0
13	204	0	51	255	0	0	255	0
14	200	0	55	255	0	0	255	0
15	196	0	60	255	0	0	255	0

Loops back to beginning of sequence

375	235	19	0	235	19
376	237	17	0	237	17
377	239	15	0	239	15
378	241	13	0	241	13
379	243	11	0	243	11
380	245	9	0	245	9
381	247	7	0	247	7
382	249	5	0	249	5
383	251	3	0	251	3
384	253	1	0	253	1
385					
386					
387					

All unused Rows to be left blank

AE	AF	AG	AH	AI	AJ
0	0	1			
0	1	45			
0	3	2			
0	5	255			
0	7	3			
0	9	64			
0	11	3			
0	13	3			
0	15	10			
0	17	3			
0	19	3			
0	21	255			
0	23	255			
0	25	255			

Ch. 31   Ch. 32   Delay

All unused Columns to be left blank (AH onwards)

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