



**for sound applications in MATLAB®
and GNU Octave**

SoundDllProLoader Documentation

Using SoundMexPro without MATLAB®

Version 1.1

<http://www.soundmexpro.de>

User Manual



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2 Introduction

This manual is part of the “SoundMexPro - ASIO Sound-Toolkit for MATLAB®” documentation. It describes the Hörzentrum Oldenburg application SoundDllProLoader.exe shipped with SoundMexPro. For a description of SoundMexPro please refer to <http://www.soundmexpro.de> and the separate SoundMexPro manual.

The application SoundDllProLoader.exe is designed to load the DLL SoundDllPro.dll that implements the main functions of SoundMexPro for using it without MATLAB®. In this way it is possible to implement SoundMexPro-Tasks on computers that do not run MATLAB®. Most commands of SoundMexPro can be used in this environment, only the commands following commands are NOT supported:

```
loadmem  
setbutton  
showerror  
getlasterror
```

Furthermore MATLAB script plugins are not supported (arguments 'plugin???' of command 'init' and commands 'plugingetdata' and 'pluginsetdata').

SoundDllProLoader does not supply a scripting language, therefore only ‘straight forward’ tasks can be implemented. Return values of SoundMexPro cannot be accessed, but they are shown are shown in the application (useful for debugging).

Note: the licensing is the same than running it through MATLAB i.e. your license file and dongle is required.



SoundMexPro uses the ASIO technology.

ASIO is a trademark and software of Steinberg Media Technologies GmbH.



SoundMexPro uses the VST technology.

VST is a trademark and software of Steinberg Media Technologies GmbH.

3 The SoundDllProLoader Main Screen

After running SoundDllProLoader.exe the main screen is shown (Figure 1).

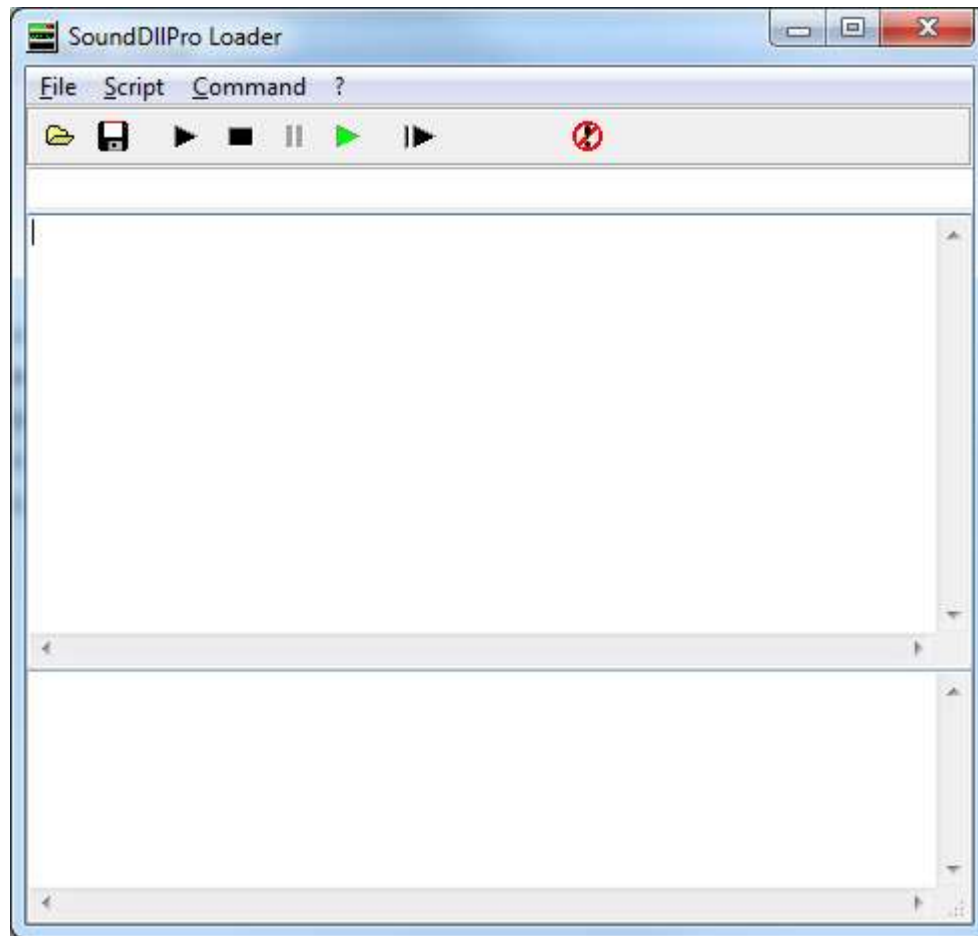










Figure 1: Main screen of SoundDllProLoader

If the required DLL SoundDllPro.dll cannot be found on startup, the settings dialog is shown where you can enter the full path to the DLL or browse to the corresponding directory). The last used script file is reloaded automatically.

The main menu and corresponding buttons are described in the following table:

Button	Menu item	Shortcut Alt+Shift+	Description
	File -> Open	O	Loads a script file.
	File -> Save	S	Saves current script file.
	File -> Settings		Opens setting dialog.
	File -> Exit		Exits application.
	Script -> Run	X	Runs current script.
	Script -> Stop	C	Stops current script and calls 'stop' and 'exit' in SoundMexPro.
	Script -> Step	P	Continues after 'pause' in script (see below),
	Script -> Reload and Run	R	Reloads current script from disk (discarding changes) and runs it.

	Command -> Execute		Executes command in command line.
	Command -> Stop and Exit	U	Stops current script, calls 'stop' and 'exit' and unloads DLL.
	? -> Help		Show this help file (if it can be found!).

The single line below the buttons is the command line interface to SoundDllPro.dll. It shows the current command (if running a script) and allows input of single commands (syntax see next chapter). Enter a command there and press 'Enter' or use the corresponding menu item or button respectively.

The text field below shows the current script (if any). If the script is not running, you may edit the lines of the script. The field at the bottom shows the return values of the last command or the returned error respectively.

4 SoundDllProLoader Script Syntax

The syntax for calling SoundMexPro commands from SoundDllProLoader is differs from 'regular' SoundMexPro commands:

```
command=COMMANDNAME; ARGUMENT1=VALUE1; ARGUMENT2=VALUE2; . . .
```

The command name must be stated after the keyword 'command' followed by pairs of arguments and values, e.g.

```
command=init; track=4; output=0,1,4,5; input=0,1
```

Command and arguments must be separated by ';', arguments and values are separated by '='. Multiple values in 'vectors' (e.g. for a list of output channels) must be separated by ','. The percent character '%' can be used for commenting: all text behind it is ignored.

Important note: if you specify filenames containing blanks, you have to enclose the complete parameter (parameter name **and** value) in quotes, e.g.

```
command=loadfile;"filename=c:\program files\eurovision_a.wav";loopcount=1
```

Single commands can be entered in the command line or in separate lines of the script window. Additionally multiple commands can be stored in text files with a single command in each line and loaded as 'scripts'.

The additional command 'pause' can be used in scripts to perform a pause of n milliseconds or to wait for key input.

```
command=init;track=4;output=0,1,4,5;input=0,1  
command=show  
pause % waits for 'Enter' or Script->Step or corresponding button  
command=hide  
pause(1000) % waits 1000 milliseconds  
command=show
```

An example 'test.sdp' is shipped with SoundMexPro (located in the examples subdirectory).

