

Default

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Chapter 1

Default

1.1 SysExpert

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How to use SysExpert

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1.2 Introduction

What does SysExpert do?

SysExpert is a utility for receiving, saving and transmitting system exclusive messages from MIDI-devices.

The difference from many other MIDI-dump programs is that SysExpert lets you receive as many messages as you like and finally save them all into one file. This is useful if your sythesizer sends more than one sys/ex-message in a bulk dump (as my Roland-U20 does). It can also be useful when you have a whole system of MIDI-devices and want to save one big sys/ex-file for the whole system instead of a dozen small ones.

1.3 Requirements

What do I need to run SysExpert?

This program uses Bill Barton's excellent MIDI Library. (midi.library is included in this archive)

To run SysExpert you must have an Amiga with kickstart >2.0 (I think) and about 200Kb free ram. (This is depending on the buffersize (see

Setting up the prefs
))

You will of course also need a MIDI-device and a MIDI-interface.

This program was developed on a $28 \, \mathrm{MHz}$ $68030 \, \mathrm{A1200}$ with $6 \, \mathrm{Mb}$ ram and a $50 \, \mathrm{MHz}$ FPU and a $210 \, \mathrm{Mb}$ HD with OS 3.0.

I have not been able to test it on any other machine or OS version, so I don't really know if there will be any problem. If there is, please let me know.

(Please, also let me know if you think it works great!)

You are of course also welcome with other comments and suggestions for future releases.

1.4 Installation

Installing SysExpert

Installing SysExpert is very simple:
* Put the file "SysExpert" wherever you like.

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* Copy the file libs/midi.library to your LIBS: drawer.
```

* You may want to edit the Tooltypes (see Setting up the prefs

1.5 Usage

How to use SysExpert

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This program is very easy to use. Just start it up from Workbench or Shell.

Recording data:

To receive sys/ex-messages hit the REC-gadget or press 'R' on the keyboard. SysExpert will now wait for sys/ex-messages to arrive.

Send the data you want to save from the MIDI-device.

SysExpert will now store all messages in a buffer.

When you have recorded all the data you want, hit the STOP-Gadget or press 'S'.

Transmitting data:

To transmit the messages in the buffer hit the PLAY-Gadget or press 'P'. All data stored in the buffer will now be sent to the MIDI-device.

Clearing data:

Hitting the CLEAR-Gadget or pressing 'C' will clear all data in the buffer.

Saving/Loading data:

To save all messages in the buffer choose 'Save' or 'Save As' from the menu. Choosing 'Load' from the menu will let you read a sys/ex-file to the buffer.

The "Status"-line displays the present status of the program. Here will also messages appear when a loaded file is truncated etc.

The "Current buffersize"-line displays the buffersize set in the tooltypes or given as an argument from CLI.

The "Messages in buffer"-line displays how many sys/ex-messages the buffer contains.

The "Bytes in buffer"-line displays how many bytes of the buffer that's used.

Sending a file without opening GUI:

If you start SysExpert from CLI, you can give the argument SEND=filename.syx. SysExpert will now send the file 'filename.syx' directly without opening the window.

Ex.

SysExpert SEND=hd2:music/sysex/rhythm.syx

This will send the file "hd2:music/sysex/rhythm.syx" to the MIDI-device.

You can combine the 'SEND'-argument with 'PATH' like this:

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Ex. SysExpert PATH=hd2:music/sysex SEND=rhythm.syx SysExpert PATH=hd2:music/ SEND=sysex/rhythm.syx SysExpert PATH=hd2:music/sysex SEND=hd2:music/sysex/rhythm.syx All these examples give the same result. (If the file rhythm.syx if larger than 50000 bytes, you also have to give the argument 'BUFFER=XXXXXXX', where XXXXXXX is the buffersize.

Setting up the prefs
for more details.)

If you specify SEND= or SEND="", the SysExpert will start as usual. This can be used in a scrip like this:

.key file

see

run hd2:Music/Utils/SysExpert BUFFER=80000 PATH=hd2:Music/sysex SEND=<file>

This script will start SysExpert as usual if no argument is given, but if you give a filename as argument, the file will be sent directly to MIDI-out. I use this script myself with ToolManager.

WARNING:

SysExpert will not check if a loaded file actually contains valid sys/ex-data. If you load a file that's not a sys/ex-file, there's a great chance that some data will be taken for real sys/ex-massages. If you send this to the synth, you may change its setting into nonsense!

1.6 Configuration

Setting up the prefs

When SysExpert is started from Workbench, it will read the prefs from the icon's tooltypes.

By selecting the SysExpert's icon and choosing "Information" in the Workbench-menu, you can edit the SysExpert's tooltypes.

SysExpert recognizes two tooltypes:

BUFFER - Set the buffersize. (default is 50000)

PATH - Set the default path. (default is where SysExpert is started.)

Ex. Put these lines in the tooltypearea:

PATH=HD1:Midi/sysex BUFFER=100000

The default path will now be set to "HD1:Midi/sysex", and the buffersize to 100Kb.

If you want to run SysExpert from CLI you can use the arguments BUFFER and PATH to set the buffersize and default path.

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Ex. Type this at the CLI-prompt:
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SysExpert BUFFER=100000 PATH=HD1:Midi/sysex

The buffersize and default path will now be the same as in the Workbench-example above.

The buffersize can not be set to less than 100 bytes.

1.7 Problems

Problems

If you are having problem sending data to the synth, be sure to have set the databits to 8 in the SYS:prefs/Serial.

Bill Barton's MIDI Library does not check this.

Some A1000-owners have complained about loosing data when receiving sys/ex. I think the reason might be that the serial device can't collect the data as fast as necessary. In fact, Bill Barton mentions this problem in the documentation for midi.library.

If you have any other problems (with this program, of course ;)), please let me know.

1.8 Address

You should send your

postcards
, bugreports, suggestions, money,
cars, etc. to this address:

Tobias Lind
Kamnarsvagen 5E:323

My address

e-mail: e92tli@efd.lth.se

22646 LUND SWEDEN

PS. If you want the c-source - contact me.

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1.9 History

History for SysExpert

v0.95 950604

First public release.

v0.96 950605

- * Bugfix doesn't hang when something's wrong before the window is opened, like a missing library or problem finding the MIDI-routes etc.
- * Added tooltypes instead of using a prefs file.
- * Now checks if the buffer contains unsaved data before quitting.
- * Now checks and notifies the user if the data is truncated when loading a file (i.e. the buffer is too small).
- v1.0 950810
 - * "Bugfix" now waits before closing window when an error has occurred, so that the user can read the message.
 - * Now checks the version of all libraries before opening them (All Commodore-libraries must be v37+ and midi.library must be v7+.)
 - * Fixed (I hope) the gadget-problems with OS 2.xx.
 - * SysExpert is now font-sensitive (uses the screenfont).
- v1.05 950823
 - * Bugfix now counts the number of sys/ex-messages correctly when loading a file. (Only worked with Roland-U20 messages).
 - * Bugfix now takes the CLI-arguments correctly.
- v1.10 950905
 - \star SysExoert can now send a file directly from CLI without opening the GUI.
 - \star You can now use the keyboard instead of hitting the gadgets with the mouse.

1.10 Postcardware

What is PostcardWare???

Postcardware means that if you like or in any other way, find this program useful, you must send me a postcard, otherwise you will not be a legal user of this program!

I have received a lot of nice emails, but I'd really like some real postcards! (They look better pinned on the wall than a printed email.)

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See my "
```

My address

SysExpert and all associated files in this release may be freely distributed on any media as long as no profit is made in the distribution or use of SysExpert and associated files.

Everything in this distribution must be left in its original unmodified form.

1.11 New in this version

New is this version

You can now operate the gadget-functions from the keyboard. Just press the key that is underlined in the gadget-text instead of using the mouse.

Sending a file without opening the GUI:

If you start SysExpert from CLI, you can give the argument SEND=filename.syx. SysExpert will now send the file 'filename.syx' directly without opening the window.

Ex.

SysExpert SEND=hd2:music/sysex/rhythm.syx

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You can combine the 'SEND'-argument with 'PATH' like this:

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All these examples give the same result.

If the file rhythm.syx if larger than 50000 bytes (default buffersize), you also have to give the argument 'BUFFER=XXXXXXX', where XXXXXXX is the buffersize. See

Setting up the prefs for more details.

If you specify SEND= or SEND="", the SysExpert will start as usual. This can be used in a scrip like this:

.key file

run hd2:Music/Utils/SysExpert BUFFER=80000 PATH=hd2:Music/sysex SEND=<file>

This script will start SysExpert as usual if no argument is given, but if you give a filename as argument, the file will be sent directly to MIDI-out. I use this script myself with ToolManager.

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PS. Actually, you can use the SEND-function as a tooltype when starting from Workbech as well, but I don't think that would be very useful.

1.12 Thanx

I would like to say thanks to all you people who have helped me $\ \leftarrow$ making this

program better by sending bugreports, suggestions and other comments.

The development of SysExpert is, however, not finished, so keep up the good work and tell me what you think of it.