

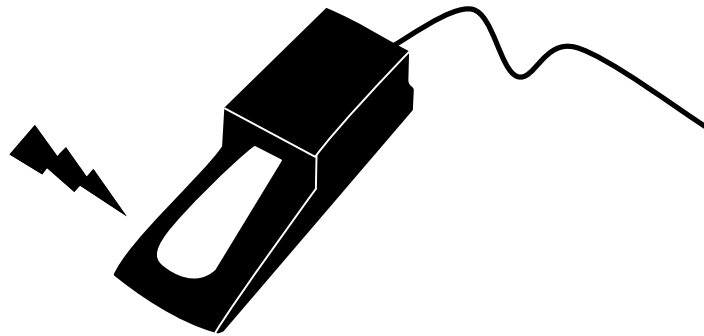
Piano Realism Virtual Pedal™

DIGITAL STUDIO DESIGNS™

PIANO REALISM VIRTUAL PEDAL™

Software for triggering pedal motion voices on a
MOTIF-based synthesizer

Owner's Manual



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IMPORTANT SAFETY PRECAUTIONS:

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

USE OF THIS PRODUCT IN CONJUNCTION WITH A SYNTHESIZER EITHER ALONE OR IN COMBINATION WITH AN AMPLIFIER AND HEADPHONES OR SPEAKERS **MAY BE CAPABLE OF PRODUCING SOUND LEVELS THAT COULD CAUSE PERMANENT HEARING LOSS OR DAMAGE TO EQUIPMENT**. DO NOT OPERATE THE SYNTHESIZER FOR A LONG PERIOD OF TIME AT A HIGH VOLUME LEVEL OR AT A LEVEL THAT IS UNCOMFORTABLE. IF YOU EXPERIENCE ANY HEARING LOSS OR RINGING IN THE EARS, YOU SHOULD IMMEDIATELY STOP USING THE SYNTHESIZER AND CONSULT A PHYSICIAN.

THIS PRODUCT TRIGGERS A MIDI NOTE IN THE SYNTHESIZER WHEN IT RECEIVES A SUSTAIN PEDAL MIDI EVENT, WHICH **COULD PRODUCE AN UNEXPECTED HIGH- OR LOW-PITCHED SOUND** FROM A SYNTHESIZER. **TO PREVENT DAMAGE TO HEARING AND EQUIPMENT, ADHERE TO THE FOLLOWING PRECAUTIONS:**

1. ALWAYS MAKE SURE THAT THIS PRODUCT IS CONNECTED AS DESCRIBED IN THE INSTRUCTIONS.
2. NEVER USE THIS PRODUCT ON A SYNTHESIZER THAT WAS NOT CONFIGURED TO WORK WITH THIS PRODUCT.
3. NEVER CHANGE FROM ONE SYNTHESIZER MODE, PATCH, PROGRAM, VOICE, SONG, OR THE LIKE TO ANOTHER WITH THE VOLUME SET HIGH. LOWER THE VOLUME OF THE SYNTHESIZER FIRST, AND THEN LISTEN FOR POTENTIALLY HARMFUL SOUNDS BEFORE RAISING THE VOLUME.
4. DO NOT USE THIS PRODUCT IF YOU DO NOT FULLY UNDERSTAND ALL OF THESE PRECAUTIONS.

Although the Piano Realism Virtual Pedal has logic to detect Piano Realism Pack voices, the following recommendations will help you reduce the possibility of triggering unintentional voices:

1. Release the sustain pedal before changing from one synthesizer mode, patch program, voice, song, or the like to another with the sustain pedal down.
2. Wait two seconds after changing from one mode to another before pressing the sustain pedal.
3. Send one program or song change after this product is connected, to ensure that the Piano Realism Pack voices are detected.

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1. Introduction

Thank you for using the Piano Realism Virtual Pedal! As a complementary product for the Piano Realism Pack, this software gives your MOTIF-based synthesizer the ability to generate realistic sounding pedal action for your piano solos. The Piano Realism Virtual Pedal application is designed to trigger the Sustain pedal effects of the Piano Realism Pack or other compatible sound library. You simply plug your computer into the synthesizer, start the application, set the ports, and begin playing your Piano Realism pianos to experience dynamic pedal effects with your FC3 pedal. It works not only with the FC3, but with any MOTIF-compatible pedal. To get the most out of this product, please read the entire manual before installation.

2. Features

- Translates MIDI Sustain events into velocity sensitive events that trigger Pedal and Damper effects
- Designed for use with the Piano Realism Pack, and will work with other compatible sound libraries
- Enables and disables itself based on detected voice parts
- Enhanced operation with FC3 produces velocity sensitive effects
- Simple MIDI connectivity
- MIDI-powered microprocessor, no external power supply needed
- Manual on/off override with lock
- Sensitivity adjustment
- Polyphony booster
- Customized operation based on detected MOTIF model
- Windows 32- and 64-bit, and OSX 10.4+ compatible

3. System Requirements

- Computer running Windows XP, Vista, Windows 7, or OSX 10.4. or higher
- One of the following MOTIF-based synthesizers:
MOTIF, S90, MO, MOTIF ES, S90ES, MOTIF XS, S90XS, MOX, MOTIF XF, MOXF
- A MOTIF-compatible sustain pedal
- Piano Realism Pack, or other compatible sound library

4. What's included

- Piano Realism Virtual Pedal software
- Owner's Manual (this document)
- Supplemental Guide for advanced users (Piano Realism Virtual Pedal - Supplement.pdf)

5. Installing the application

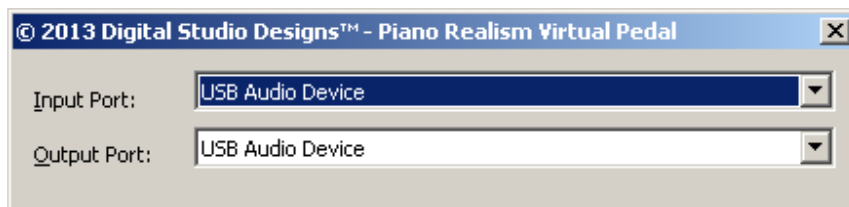
The Piano Realism Virtual Pedal application is packaged as a single file that is intended to be simply copied from the distribution media to your computer's desktop. For Windows, the file is PRPWIN.exe and is located in the WIN folder of the distribution media. For OSX, the file is PRPOSX.dmg and is located in the OSX folder.

6. Using the application

Each instance of the application is designed to function with one running synthesizer at a time for a given input and output port combination.

Follow these steps to use the application:

1. Connect synthesizer to the computer using one of the options described in the synthesizer's Owner's Manual. The options usually include MIDI, USB, or FireWire. Note: You may need to download and install a driver on your computer. **Make sure you use latest driver.**
2. Ensure that the **Midi In/Out** of the synthesizer is set appropriately for the interface. Also ensure that the **Device Number** is set to either "1" or "All". See synthesizer Owner's manual for specific instructions.
3. Run the application by clicking its executable:
On Windows, execute PRPWIN.exe.
On OSX, mount PRPOSX.dmg and then execute "© 2013 Digital Studio Designs - Piano Realism Virtual Pedal.app".
4. Select the particular MIDI input and output ports that identify your synthesizer. For a simple loopback setup, choose ports with identical names, if possible. If you do not see your driver listed, check your configuration and restart the application.



5. Select a Piano Realism Pack Performance, Multi, or Song mix on the synthesizer.
6. Start playing.
When you press and release the sustain pedal, you should hear the pedal effects.

When the application is initially started, the pedal translation will be enabled on all channels. The application will enable and disable itself when it detects the presence of pedal effects after a MIDI Program Change or Song Change—this helps the Sustain pedal to not trigger the wrong voices. It works with the specific MOTIF-based synthesizers and compatible foot pedals identified in the System Requirements. When using an FC3 pedal, the application will send velocity-sensitive events to the synthesizer to produce the maximum realism.

Note: The application must receive a MIDI Program Change or Song Change in order to enable or disable itself. These changes might not be sent from a MOTIF-based synthesizer in Master mode, unless the synthesizer is programmed to do so. Consult your synthesizer's Owners Manual for instructions on how to set the Zone Switch to trigger an external Program Change in Master Mode. In Master Mode, the synthesizer may ignore consecutive clicks of the Number [1] - [16] buttons that occur too quickly.



THERE MAY BE A PERIOD OF TIME WHEN A SYNTHESIZER IS CHANGING MODES THAT THE APPLICATION COULD TRIGGER AN UNINTENDED VOICE, PERFORMANCE, MULTI, SONG MIX, OR THE LIKE BEFORE THE APPLICATION DETECTS THAT THE CHANGE HAS OCCURRED. READ THE IMPORTANT SAFETY PRECAUTIONS SECTION FOR MORE DETAILS.

7. Temporary shutoff**

Send two identical MIDI Program Change events (e.g. two consecutive clicks of one of the Number [1] - [16] buttons on the synthesizer) within one second, and the application will disable itself on all channels. Send one more MIDI Program Change event (one more click) and the application will resume with voice detection.

8. Lock mode**

Send three identical MIDI Program Change events (e.g. three consecutive clicks of one of the Number [1] - [16] buttons on the synthesizer) within two seconds, and the application will lock its detection state. This means that if the application was enabled on any channels, after locking, it will remain enabled on those channels even after a Program Change where no pedal voices were detected. Send three more MIDI Program Change events (three more clicks) and the application will resume with voice detection.



IN LOCK MODE THE APPLICATION COULD TRIGGER A VOICE, PERFORMANCE, MULTI, SONG MIX, OR THE LIKE THAT PRODUCES AN UNEXPECTED HIGH- OR LOW PITCHED SOUND. READ THE IMPORTANT SAFETY PRECAUTIONS SECTION FOR MORE DETAILS.

9. Pedal sensitivity**

Send four identical MIDI Program Change events (e.g. four consecutive clicks of one of the Number [1] - [16] buttons on the synthesizer) within three seconds and the application will enter the Pedal Sensitivity Adjustment mode. In this mode, you press and release the pedal while adjusting the modulation wheel (second wheel from the left) to fine tune the pedal sensitivity to your preference. Higher values cause the pedal to react more quickly. Send one more MIDI Program Change event (one more click), and the application will store the sensitivity setting. The factory setting is 122 (hex 7A). The pedal sensitivity value that you set is retained permanently, until you close the application.

10. Polyphony Booster**

The Dynamic Voice Allocation (DVA) in older generation synthesizers (Original MOTIF and ES-series) consumes notes in such a way that you can experience “note robbing” or dropouts with heavy use of the sustain pedal while certain effects of the Piano Realism Pack are used. The effects which consume the most polyphony are Hammer Release and Key-off. To remedy this problem, the Polyphony Booster function of the application automatically adjusts the polyphony of the synthesizer while notes are being played with the sustain pedal down in order to minimize the potential dropouts.

Polyphony Booster is enabled by default when the application detects an original MOTIF, S90, MOTIF ES, or S90ES. It is disabled by default on the newer synthesizers XS and beyond since it makes no noticeable improvement to the sound. The synthesizer model must be detected by using a Program Change or Song Change before this feature will be activated.

Send five identical MIDI Program Change events (e.g. five consecutive clicks of one of the Number [1] - [16] buttons on the synthesizer) within four seconds and the application will enter the Polyphony Booster Sensitivity

Piano Realism Virtual Pedal™

Adjustment mode. In this mode you adjust the modulation wheel (second wheel from the left) while playing to set the Polyphony Booster sensitivity to your preference. With the modulation wheel at zero Polyphony Booster is off, and you may hear dropouts while playing if you hold the pedal down and play many notes. With the modulation wheel at max, the Polyphony Booster stays on for the longest amount of time before restoring the polyphony. The factory setting is 100 (hex 64) for models MOTIF and ES, and 0 for models XS and above. The Polyphony Booster sensitivity value that you set is retained until you close the application.

**This feature may not be available when the synthesizer is in Song, or Master-Song mode.