

## Casio CDP-S350

### Making simultaneous connections to Chordie, Synthesia & PianoMarvel

#### Contents

|   |    |
|---|----|
| Overview .....                                  | 2  |
| Download and Install your Apps.....             | 3  |
| LoopMIDI 1.0.16.27 .....                        | 3  |
| MIDI-OX 7.0.2 .....                             | 6  |
| Chordie 1.2.6 .....                             | 12 |
| Synthesia .....                                 | 14 |
| PianoMarvel .....                               | 16 |
| Configure loopMIDI .....                        | 17 |
| Configure the Casio CDP-S350 Digital Piano..... | 21 |
| Configure MIDI-OX .....                         | 22 |
| Configure PianoMarvel .....                     | 30 |
| Configure Chordie .....                         | 36 |
| Configure Synthesia .....                       | 38 |
| Startup Sequence .....                          | 44 |

## Overview

This document explains how to make the Casio CDP-S350 Compact Digital Piano work with PianoMarvel, Chordie and Synthesia all at the same time.

### What is the Problem?

The CASIO USB-MIDI driver is not Multi-Client. This means if you use the CASIO USB-MIDI Port to make a connection to PianoMarvel, then it can no longer make a simultaneous connection to Chordie or Synthesia.

### What is the Solution?

Use the loopMIDI Multi-Client Port.

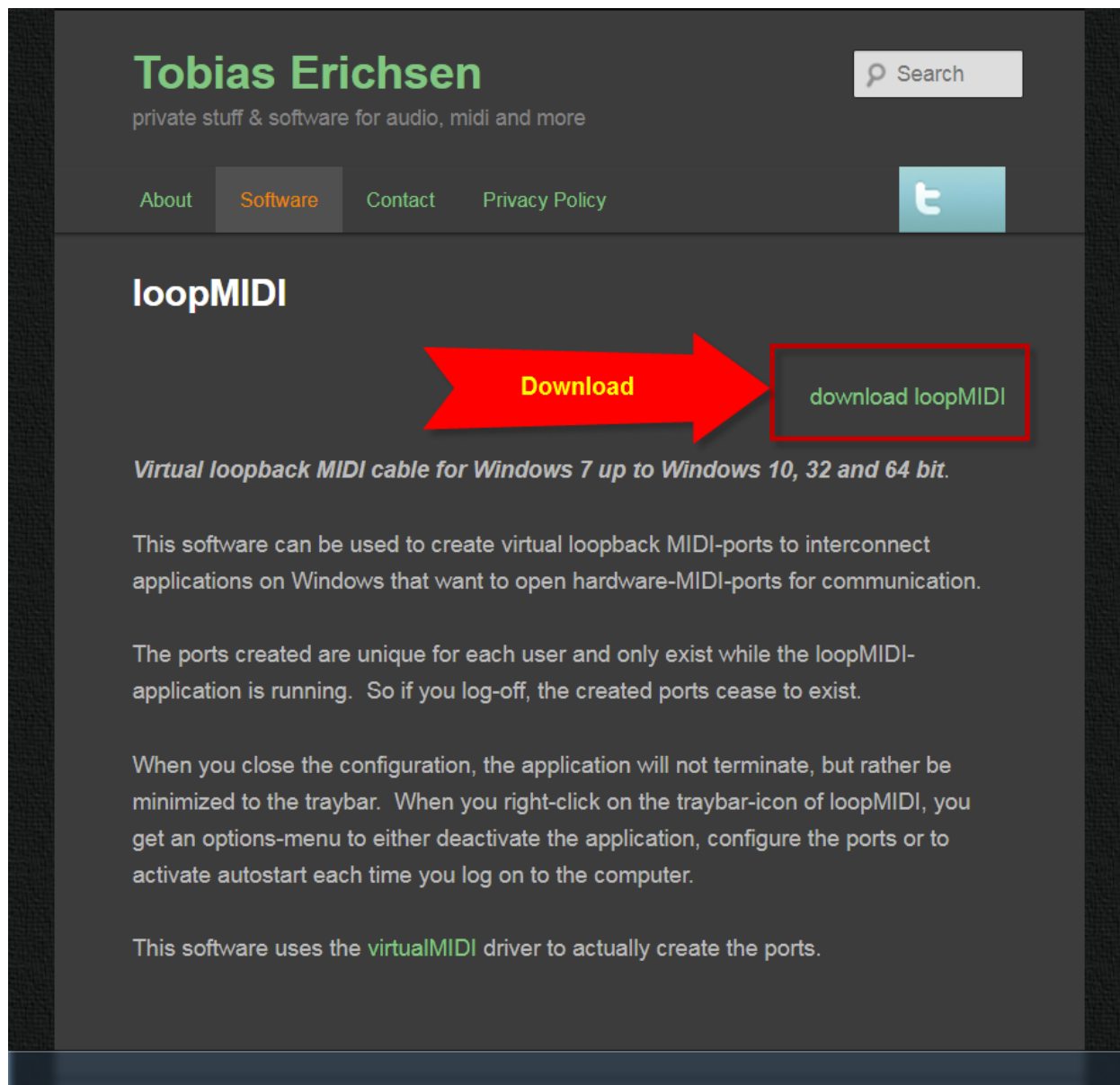
Use MIDI-OX to connect the CASIO USB-MIDI Port to the loopMIDI Port.

Connect every other application to this loopMIDI Port.

## Download and Install your Apps

LoopMIDI 1.0.16.27

<http://www.tobias-erichsen.de/software/loopmidi.html>



**Tobias Erichsen**  
private stuff & software for audio, midi and more

About Software Contact Privacy Policy

**loopMIDI**

**Download** → download loopMIDI

*Virtual loopback MIDI cable for Windows 7 up to Windows 10, 32 and 64 bit.*

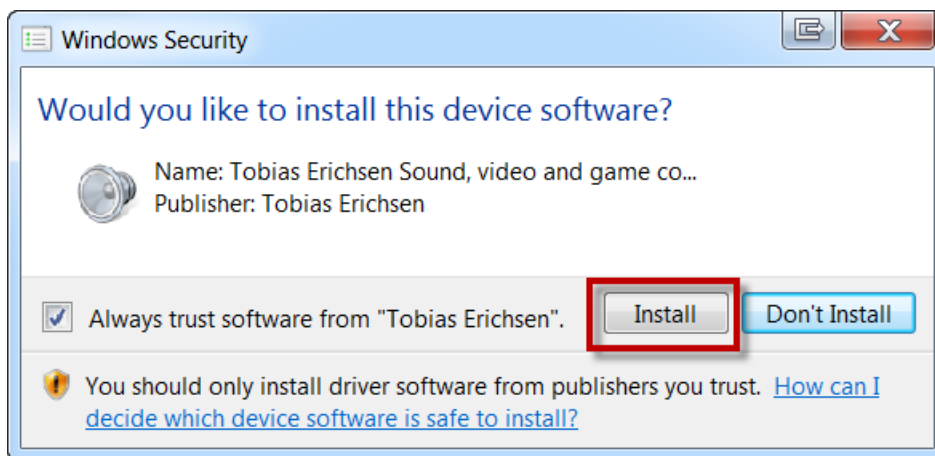
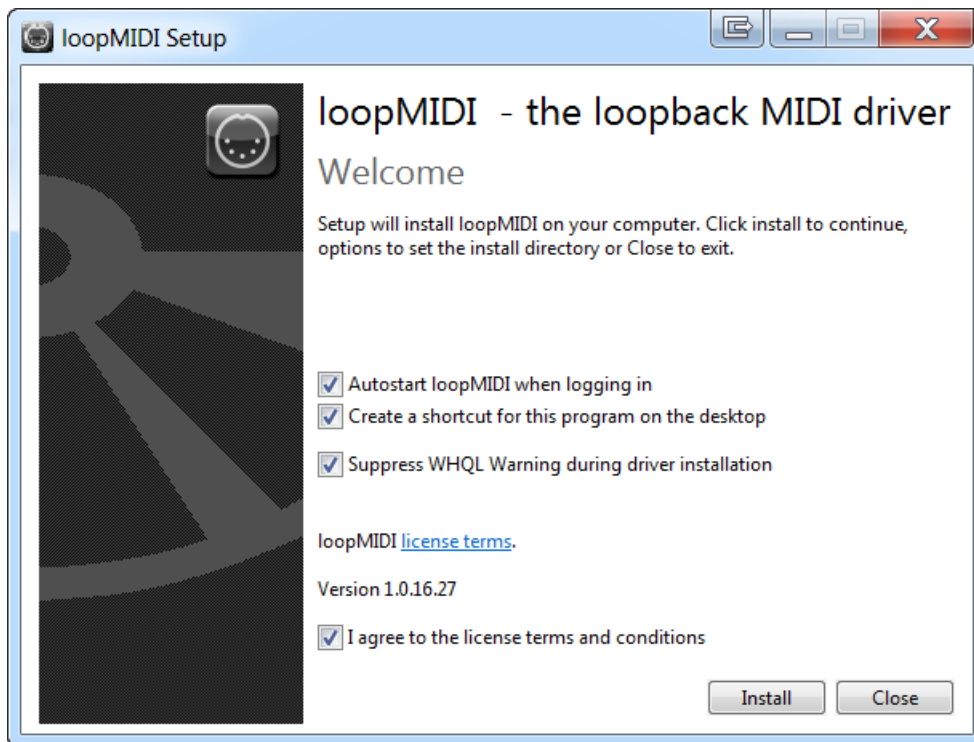
This software can be used to create virtual loopback MIDI-ports to interconnect applications on Windows that want to open hardware-MIDI-ports for communication.

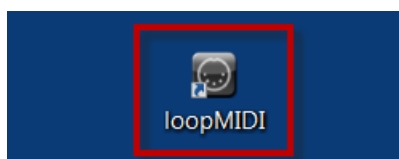
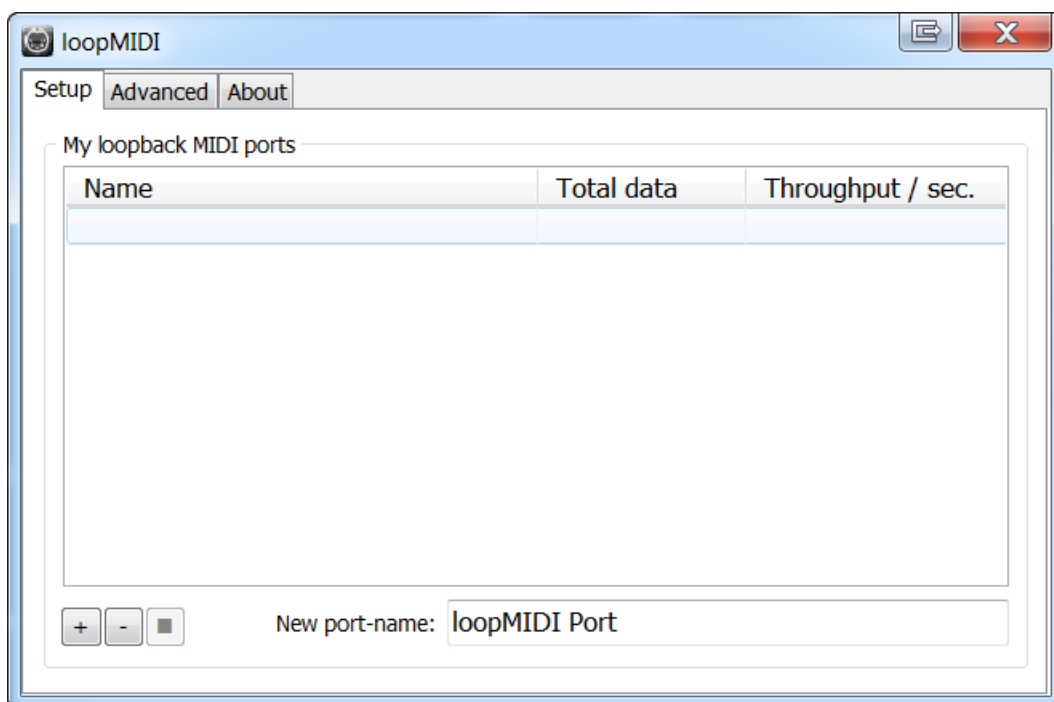
The ports created are unique for each user and only exist while the loopMIDI-application is running. So if you log-off, the created ports cease to exist.

When you close the configuration, the application will not terminate, but rather be minimized to the traybar. When you right-click on the traybar-icon of loopMIDI, you get an options-menu to either deactivate the application, configure the ports or to activate autostart each time you log on to the computer.

This software uses the **virtualMIDI** driver to actually create the ports.

loopMIDISetup.exe





<http://www.midiox.com/>

**MIDI-OX**

[Program](#)  
[Forum](#)  
[MIDI Yoke](#)  
[MIDI Tools](#)  
[XGC](#)  
[Desktop Restore](#)  
[HP16C](#)  
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[Order Now amazon.com.](#)

Google™  Google Search  
☒ Search WWW ☐ Search midiox.com

**HP16C Emulator**  
<http://www.hp16c.net>

**Welcome**

Welcome to **MIDI-OX**, the world's greatest all-purpose MIDI Utility! For those with time on their hands, you can read a brief [history](#) of MIDI-OX and how it came by its name. We have also included a [general description](#) of the utility and [change history](#). The rest of you will want to grab the [latest version](#) and get right to work. MIDI-OX was created by Jamie O'Connell and Jerry Jorgenrud.

If you're trapped in someone else's frames, [click here](#).

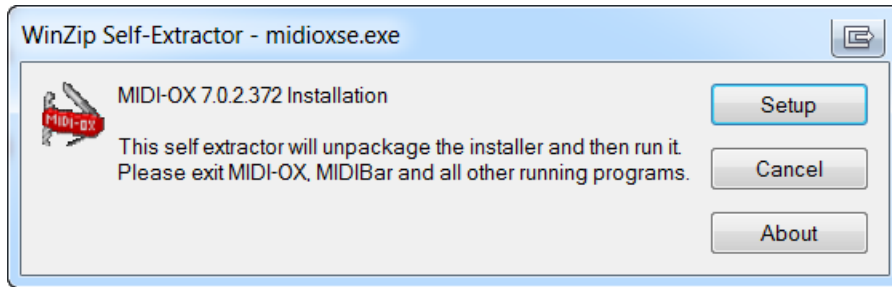
**Donate**

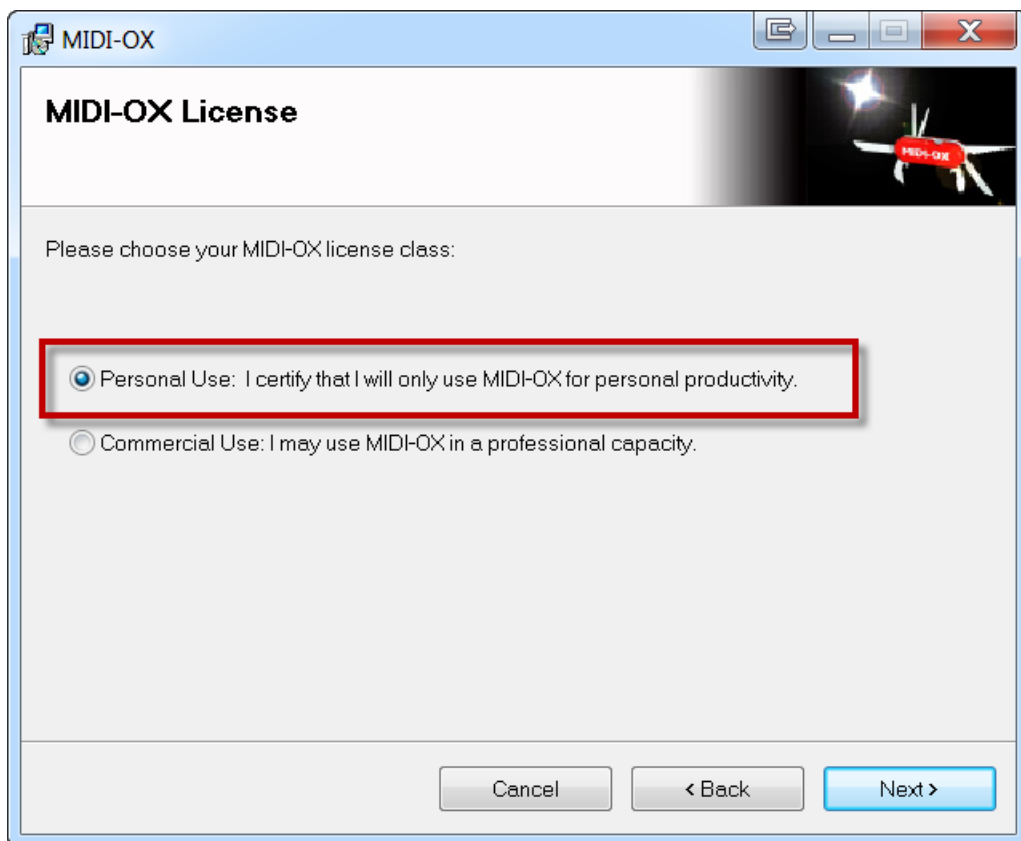
VISA

Donate via **PayPal** or Credit Card. Your contribution will help us acquire new and updated programming tools to allow continued **MIDI-OX** development. It costs quite a bit of money each year to acquire Software Development Kits, Compiler updates, and Test equipment. Donations will also help cover ongoing costs of the **MIDI-OX** Web site maintenance and development. If you can possibly help out, please do so.

**Download** **MIDI-OX 7.0 has been released:**  
**[Download: MIDI-OX 7.0.2](#)**

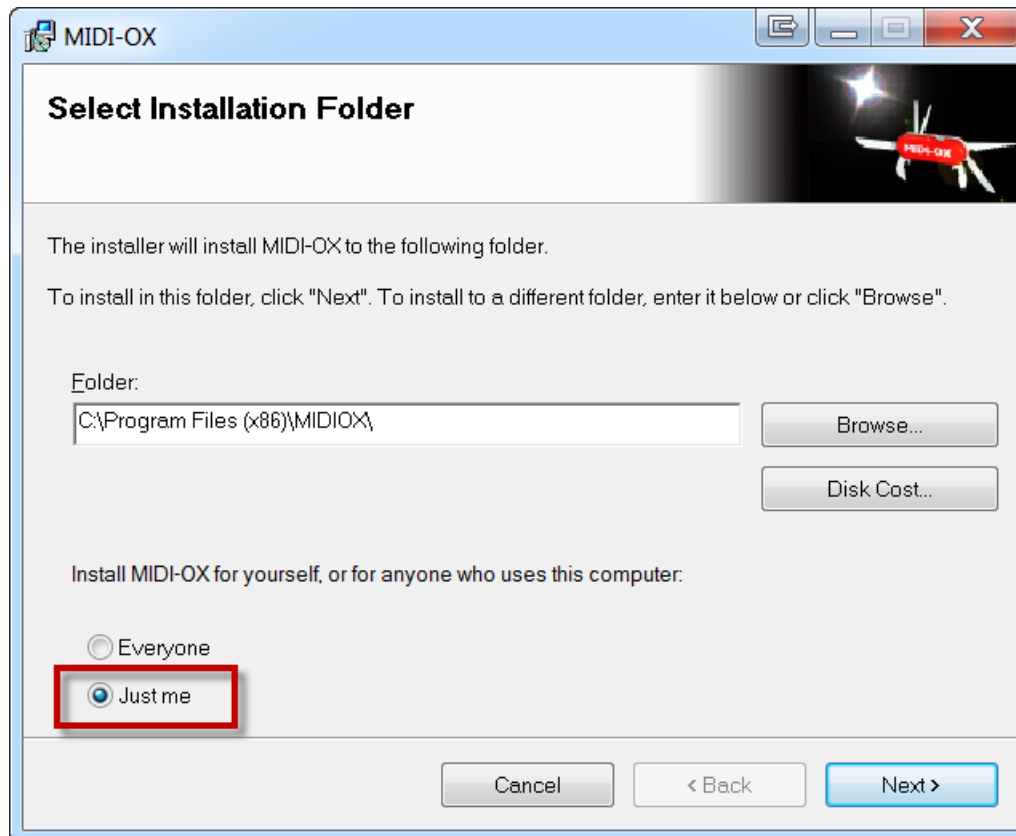
midioxse.exe

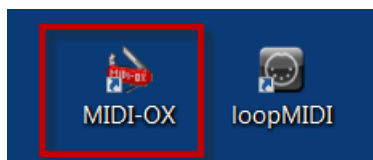
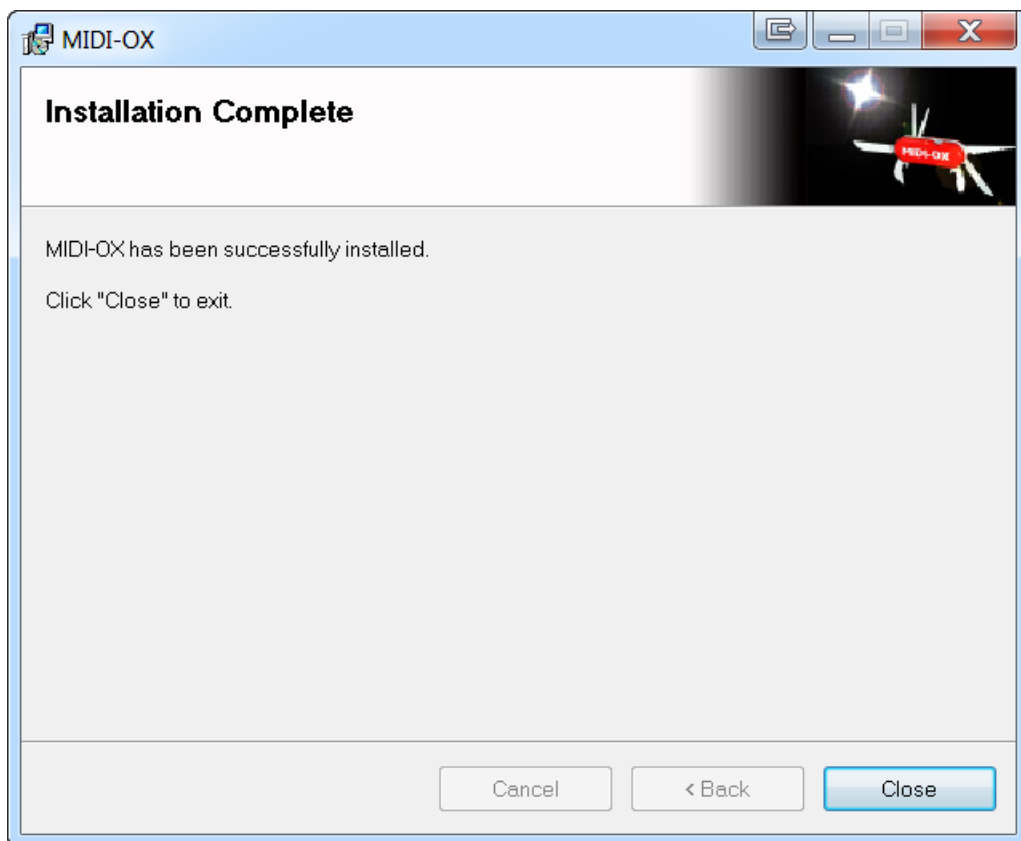


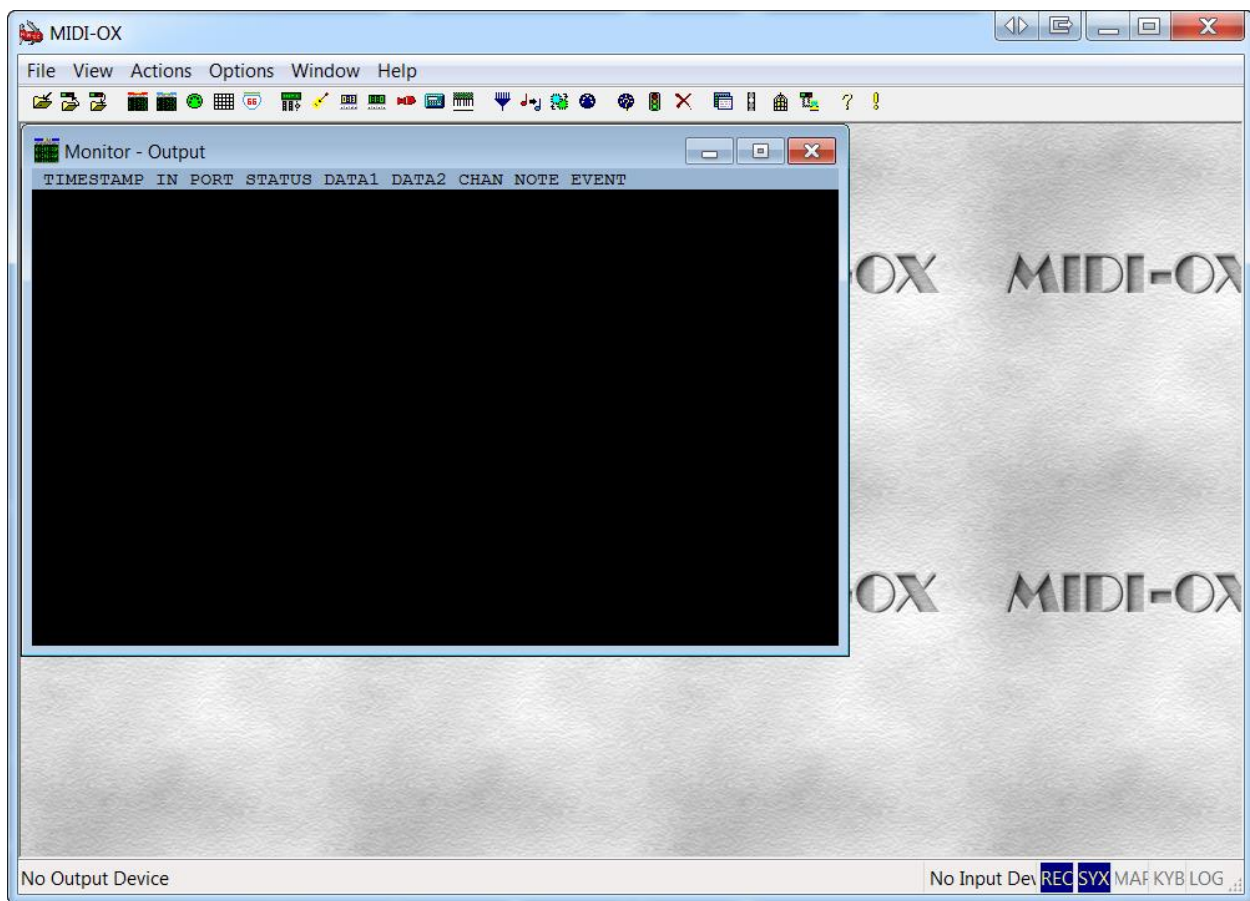




Install Folder = C:\Program Files (x86)\MIDI-OX\

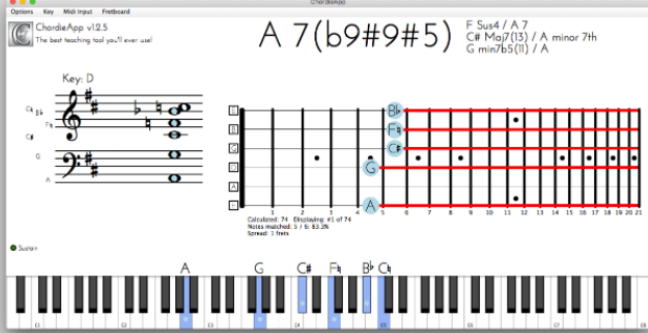






## Chordie 1.2.6

<https://www.chordieapp.com/>



The screenshot shows the Chordie App interface. At the top, it displays the chord **A 7(b9#9#5)** and its constituent parts: **F Sus4 / A 7**, **C# M7(13)**, **A minor 7th**, and **G min7b5(11) / A**. Below this, there is a musical staff in **Key: D** showing the chord's voicing. To the right of the staff is a fretboard diagram with a red grid highlighting the chord's structure. At the bottom, a piano keyboard visualization shows the notes of the chord (A, G, C#, F#, Bb, C#) highlighted in blue. The app's logo, a stylized 'C' with a '7', is in the top right corner.

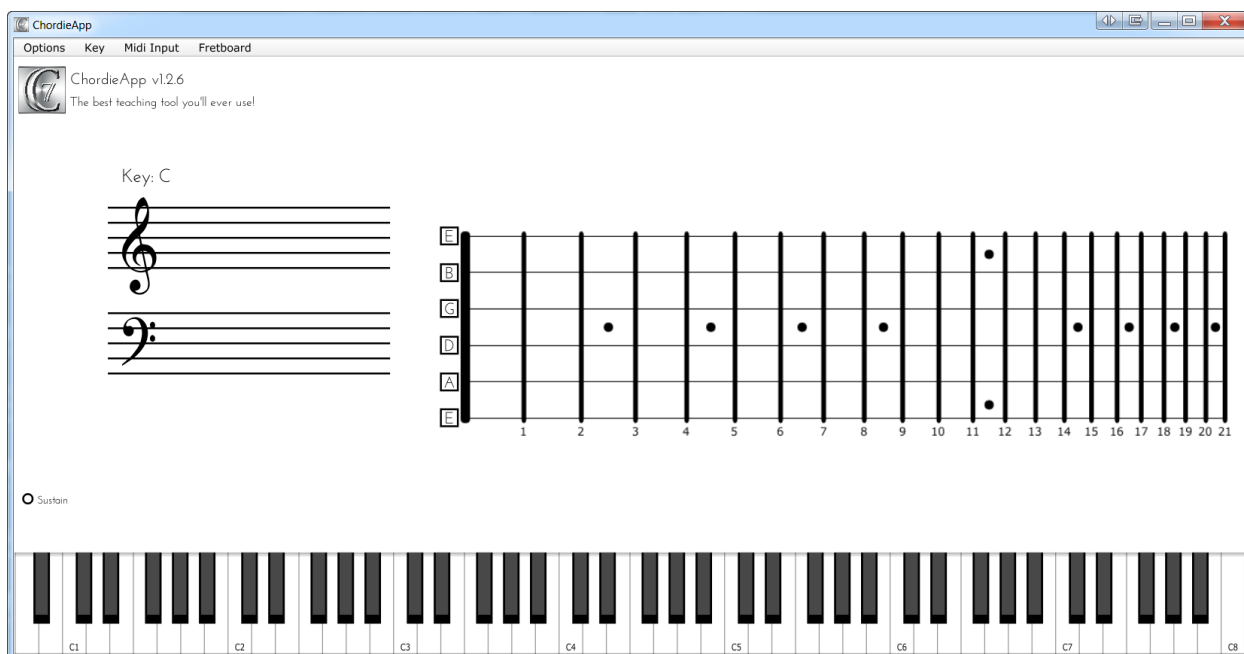
# CHORDIE APP

THE ONLY TEACHING TOOL YOU'LL EVER USE!

BUY FOR MAC OSX & WINDOWS

The license fee is \$25 per installation.

## ChordieApp.exe



## Synthesia

<https://synthesiagame.com/>



# Synthesia

About Songs Support Keyboards

## A fun way to learn how to play the piano.

Whether you've always wanted to learn or already have some experience, you've just found a fun new way to practice. Join the millions using Synthesia.

[Try it Free](#) [Unlock for \\$40 \\$29](#)

Summer sale, 25% off



Watch on  YouTube



### Play at Your Own Speed

In melody practice, Synthesia waits for you to play the correct note before moving on.



### Read Sheet Music... or Not

Enable musical notation for any song. Or, leave it turned off and just enjoy the falling notes.



### Practice Hands Separately

Choose what you want to practice. Synthesia will play the rest for you so you can focus on your goal.



### Unlimited Songs

Play all 150 included songs, every song from the [Music Store](#), or any MIDI file you can find or create.



### Track Your Progress

Immediate feedback shows how you played. Long term tracking shows how you're improving.

### Changing Lives for 15 Years

May-20-2021

Synthesia has been around since before apps were called apps. Over the years, my favorite thing has been learning the different ways it has impacted the lives of its users.

Recently YouTube collected and showcased a number of stories about videos that have done the same for users of their platform. One of those stories was about a Japanese seaweed farmer that used videos of songs played in Synthesia to achieve his dreams of becoming a pianist.

It's a great story that you can watch, [here](#). (It's in Japanese, so you may need to click the CC button at the lower-right to turn on subtitles.)

Hearing from so many of you over the years has brought no end to the gratification this project has given me. Thank you for going on this journey with me and thank you for using Synthesia!

- Nicholas

### Synthesia 10.7

Feb-15-2021

Simple MIDI Recording, down-stems, and new languages:

- Added a simple multi-track recorder to the Free Play screen (when unlocked).
- Improved sheet music: note stems are now able to point down.
- Added three new display languages: Catalan, Turkish, and Japanese.
- Many other fixes and improvements.

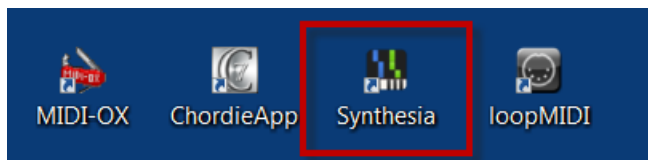
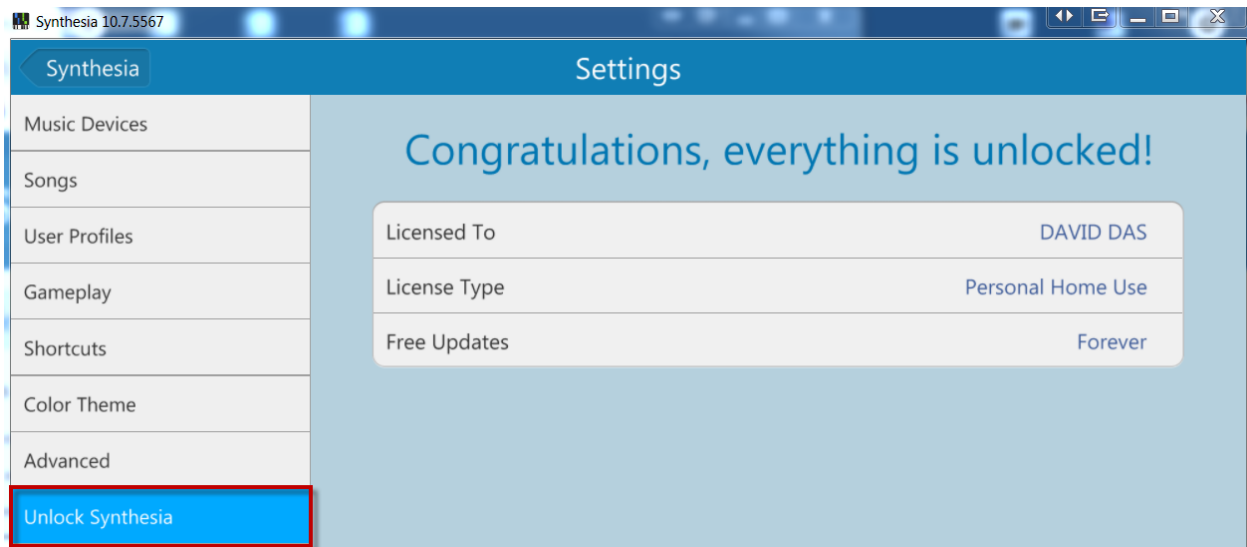
### Synthesia 10.6

Sep-29-2019

Full-screen Sheet Music:

- Use the new gear menu to show full-screen sheet music.
- Navigate through the song by clicking the sheet music.
- Bookmarks and loops are now shown in sheet music.
- Set the number of errors before your loop restarts automatically.
- Many other bug fixes and improvements.

Note: When you purchase the License for \$29, you are free to install this application on all computers in your household.



## PianoMarvel

<https://musicmarvel.com/>

The screenshot shows the PianoMarvel website. At the top is a blue navigation bar with links: TELL A FRIEND, MY ACCOUNT, LAUNCH APP NOW, and a shopping cart icon with 0 items. Below this is a white header with the PianoMarvel logo and a menu: Competitions, Find a Teacher, Conferences, Store, Support, and News. The main content area has a dark grey background. On the left, there's a video player showing a boy playing piano, with a play button overlay. Below the video, text asks if the user is ready to learn piano and promotes the award-winning piano learning software. On the right, a 'Top Selling Items' section shows a grid of products with their prices. A sorting dropdown is set to 'Default sorting'.

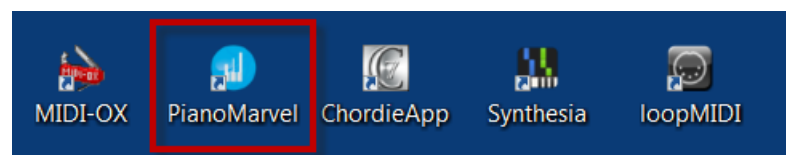
**Piano Marvel**  
The fastest way to learn piano!

Are you ready to learn to play the piano but don't know where to start? Piano Marvel's award-winning **piano learning software** takes the mystery out of learning to play the piano. [Create a free Piano Marvel account today!](#)

**Top Selling Items**  
Showing 1-6 of 65 results

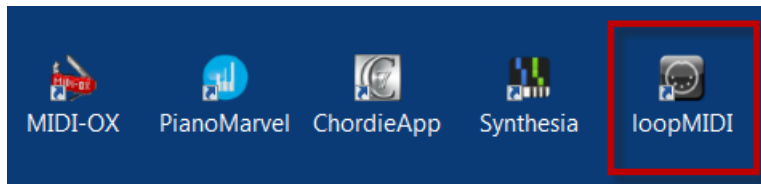
| Product                                       | Price                      |
|---|----------------------------|
| 1 Year Piano Marvel Premium Virtual Gift Code | \$110.99                   |
| 1 Year Piano Marvel Premium Gift Card         | \$110.99                   |
| Piano Marvel Method Book Set                  | <del>\$72.00</del> \$57.60 |
| Piano Marvel Method 1                         | \$12.00                    |
| MIO MIDI Interface Cable                      | \$40.00                    |
| Piano Marvel 4 month Semester Gift Card       | \$52.99                    |

A 1-year Subscription to PianoMarvel costs \$110.99





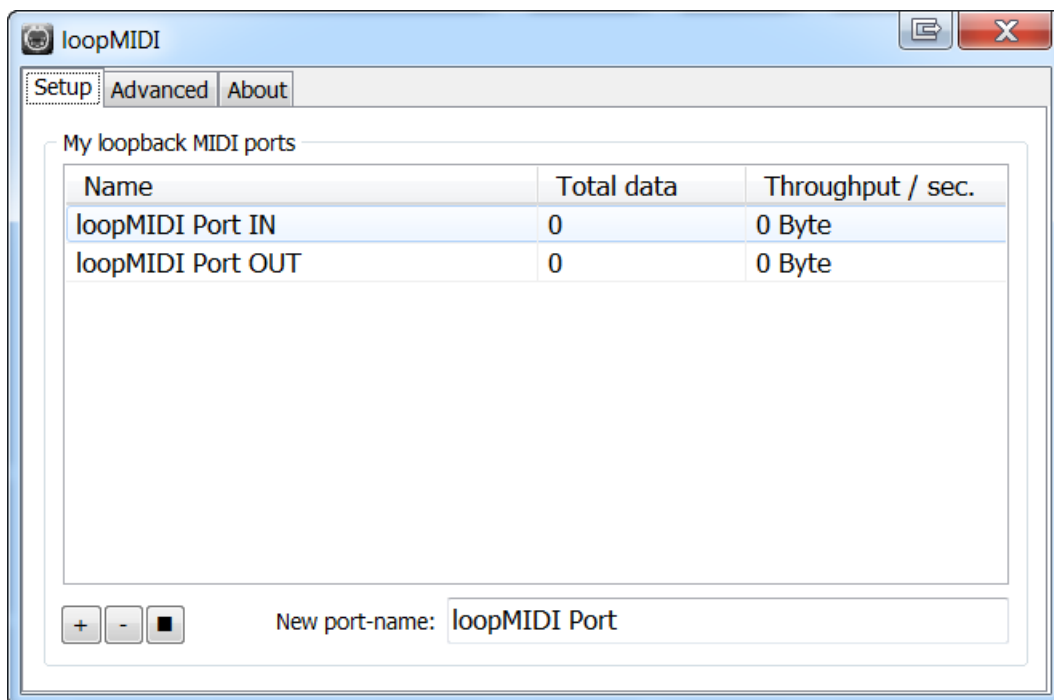
## Configure loopMIDI

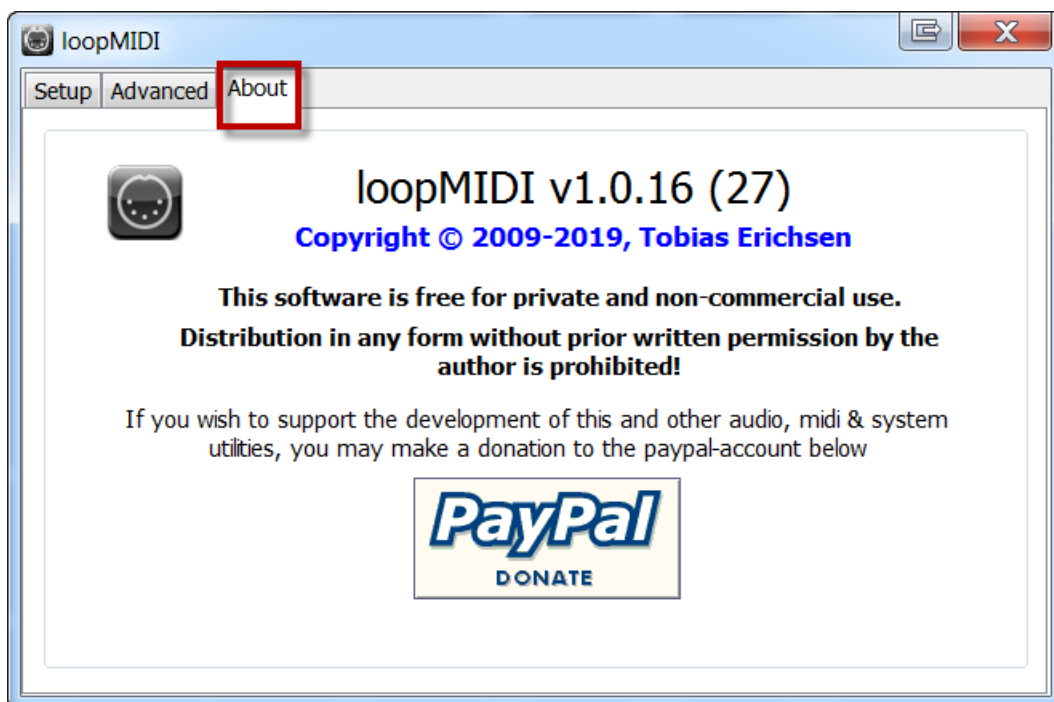
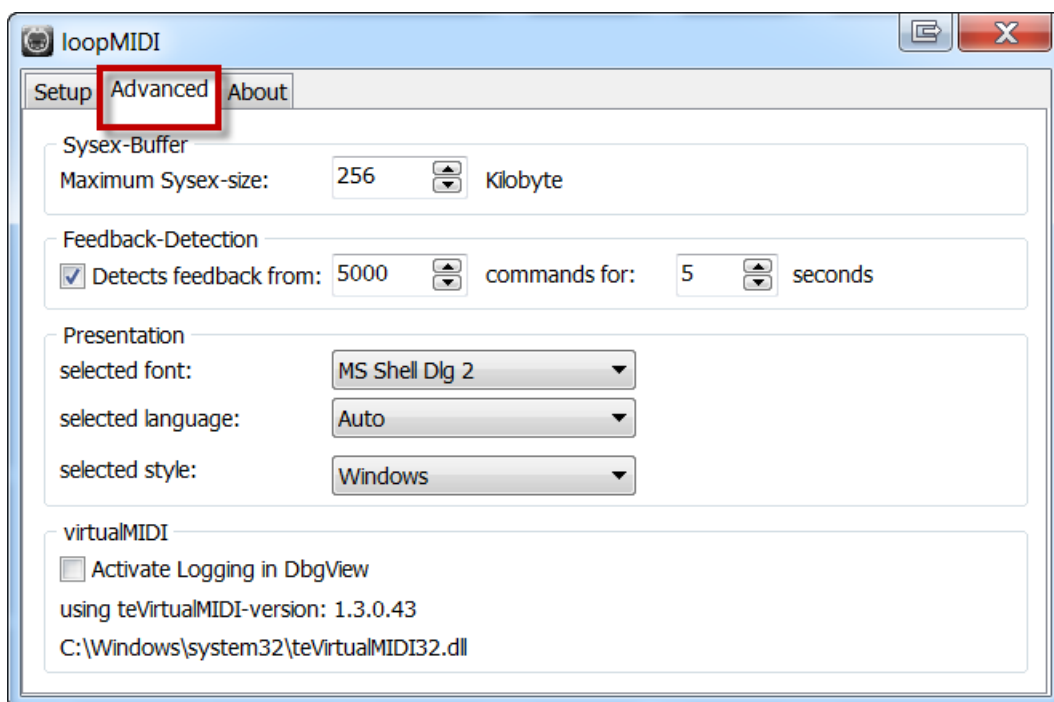


Add 2 loopback MIDI Ports:

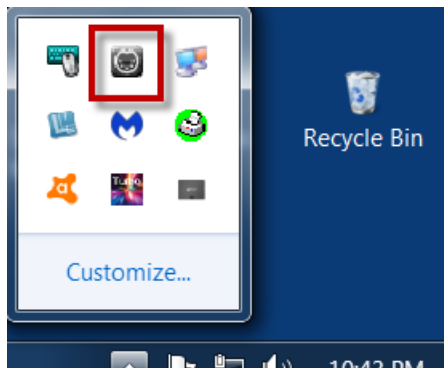
loopMIDI Port IN

loopMIDI Port OUT



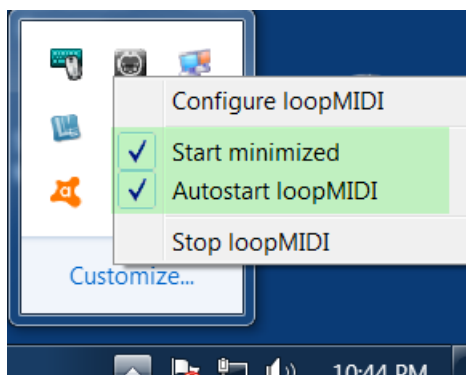


Check the LoopMIDI App in the system tray



Make sure these two options are checked:

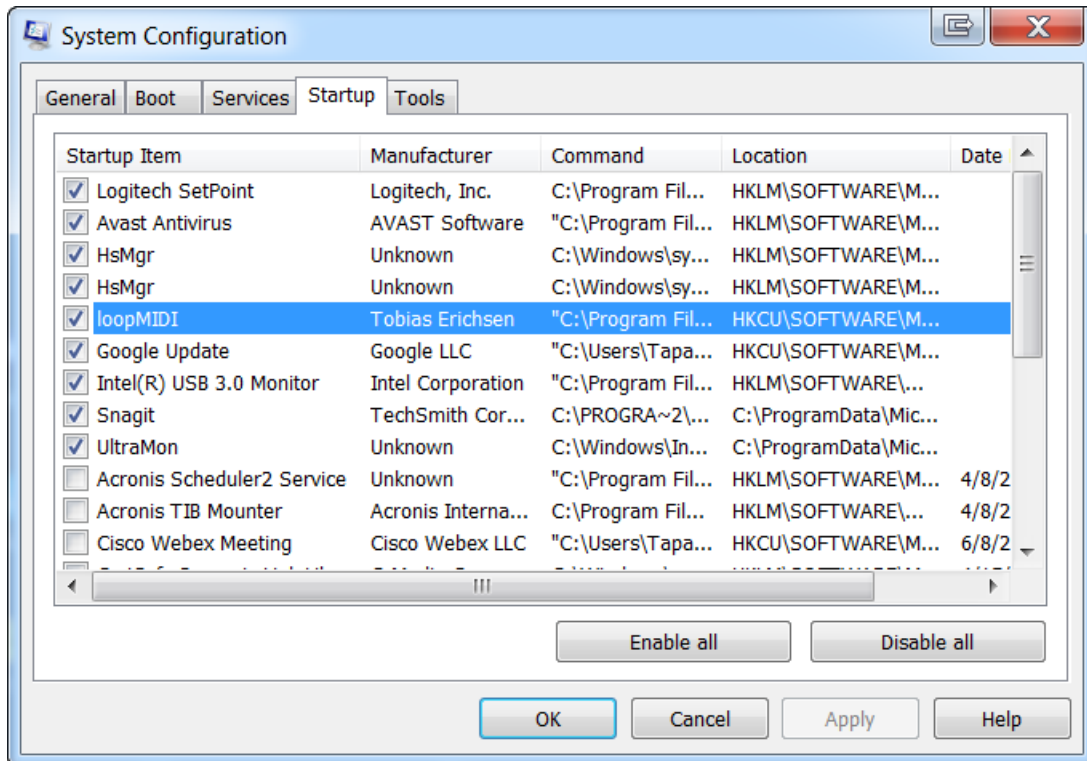
- Start minimized
- Autostart loopMIDI



Open System Configuration

Run | **Msconfig.exe**

Make sure loopMIDI is in the Startup.



## Configure the Casio CDP-S350 Digital Piano

Connect the AC Adapter to the Casio Digital Piano.

Connect a USB 2.0 Cable to the To HOST MIDI Port on the Casio.

Turn on the Casio CDP-S350.

Make sure that Voice Layering is not enabled.

Make sure that the Casio is not in Accompaniment Mode.

## Configure MIDI-OX

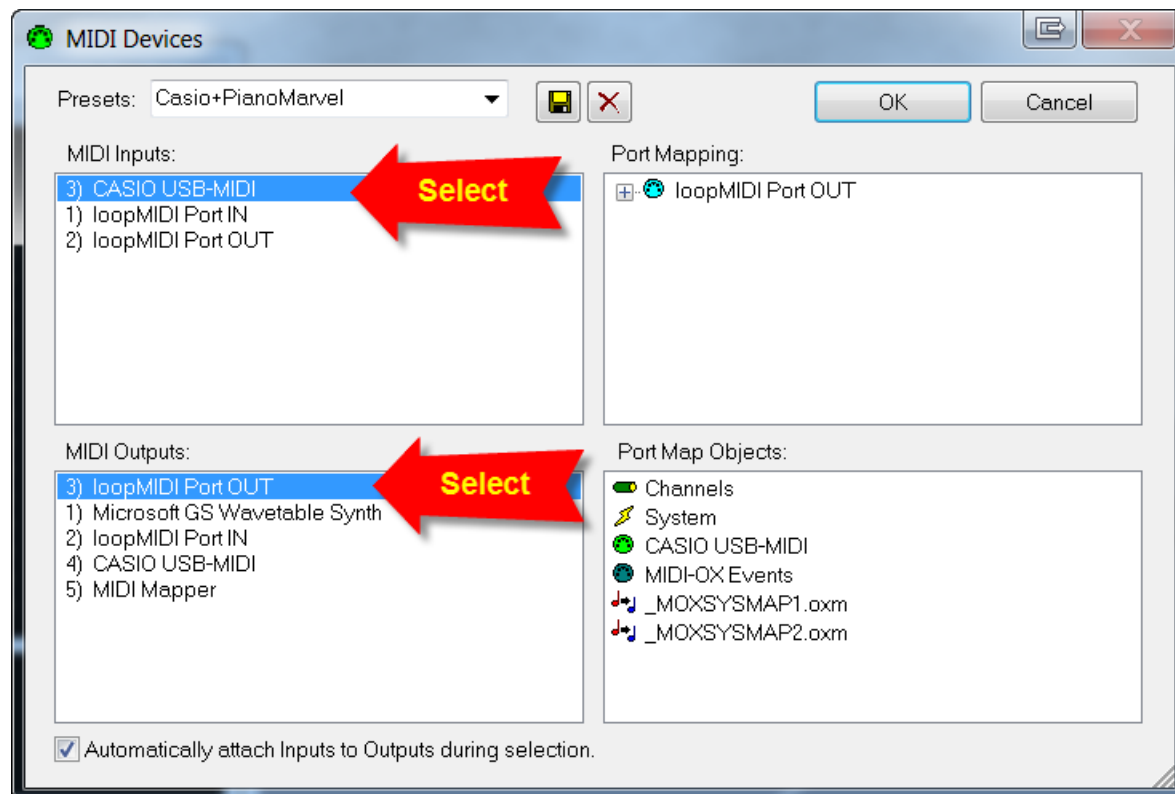
Launch MIDI-OX

Open MIDI Devices



Select MIDI Input = **CASIO USB-MIDI**

Select MIDI Output = **loopMIDI Port OUT**



Open the Raw MIDI Input Window

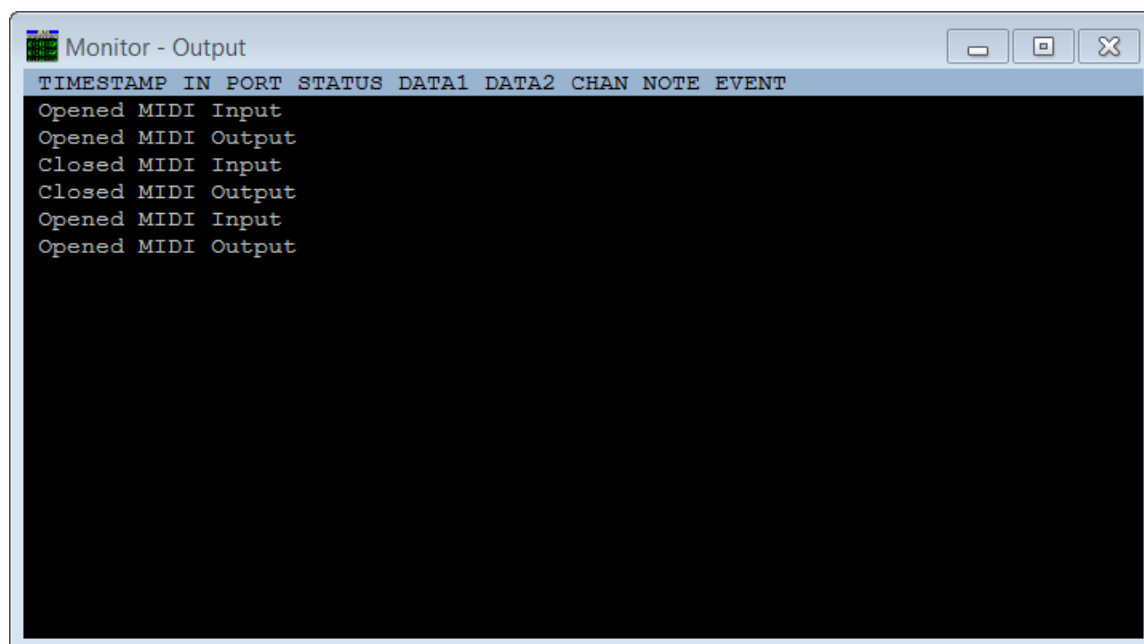
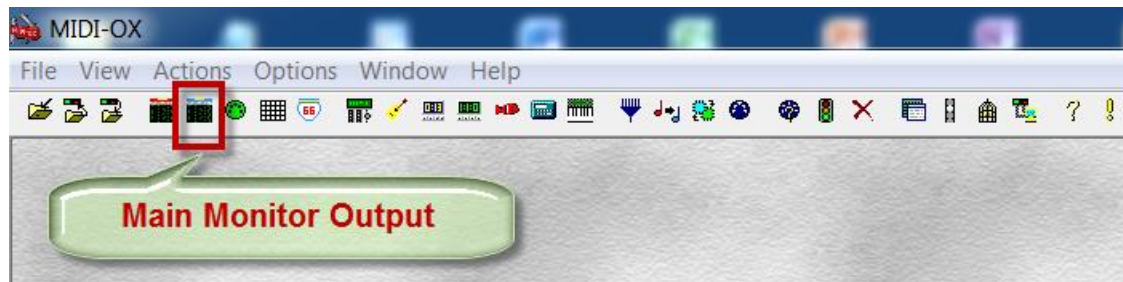


You will see the Active Sensing events generated by the Casio

The image shows a window titled 'Monitor - Input'. It contains a table with the following columns: TIMESTAMP, IN, PORT, STATUS, DATA1, DATA2, CHAN, NOTE, and EVENT. The table lists 18 rows of 'Active Sensing' events from a Casio device. The data is as follows:

| TIMESTAMP | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT          |
|-----------|----|------|--------|-------|-------|------|------|----------------|
| 93798     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 94070     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 94343     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 94616     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 94889     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 95163     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 95435     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 95708     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 95981     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 96255     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 96527     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 96800     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 97073     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 97346     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 97619     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 97894     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 98166     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 98439     | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |

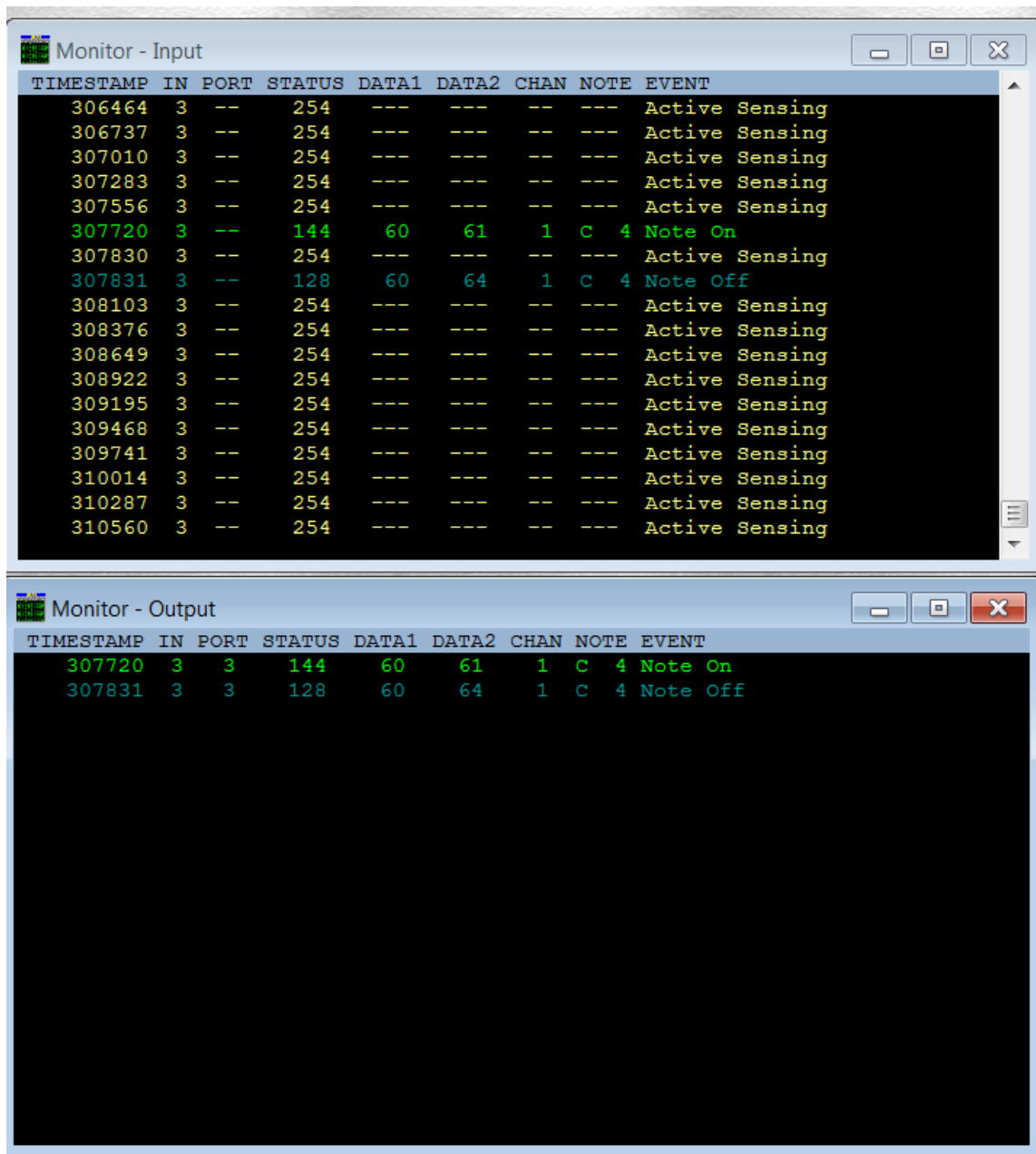
Open the Main Output Monitor Window





Press the Middle C (Note C4) on the Casio Keyboard  
This is MIDI Note 60

The MIDI Input Monitor window will show the Note On/Note Off pair



| TIMESTAMP | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT          |
|-----------|----|------|--------|-------|-------|------|------|----------------|
| 306464    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 306737    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 307010    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 307283    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 307556    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 307720    | 3  | --   | 144    | 60    | 61    | 1    | C 4  | Note On        |
| 307830    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 307831    | 3  | --   | 128    | 60    | 64    | 1    | C 4  | Note Off       |
| 308103    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 308376    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 308649    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 308922    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 309195    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 309468    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 309741    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 310014    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 310287    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 310560    | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |

| TIMESTAMP | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT    |
|-----------|----|------|--------|-------|-------|------|------|----------|
| 307720    | 3  | 3    | 144    | 60    | 61    | 1    | C 4  | Note On  |
| 307831    | 3  | 3    | 128    | 60    | 64    | 1    | C 4  | Note Off |

The Main Output Monitor window will reflect the exact same MIDI Note On/Note Off pair.

This confirms that whatever you are playing on the Casio Keyboard is getting sent to the loopMIDI Port OUT.

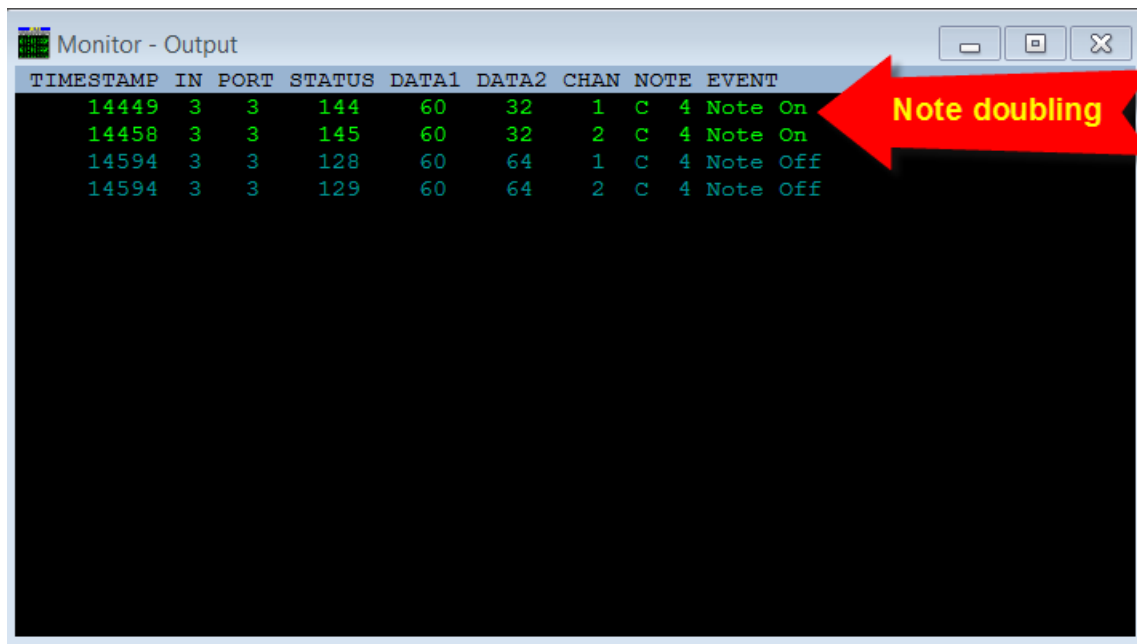
## Note:

You will begin to see a note doubling if you press the **Layer button** on the Casio.

This allows you to play one Upper Voice and one Lower Voice.

When voice layering is engaged, the Casio sends out duplicate MIDI messages.

This will show up in the MIDI Output Monitor window like so.

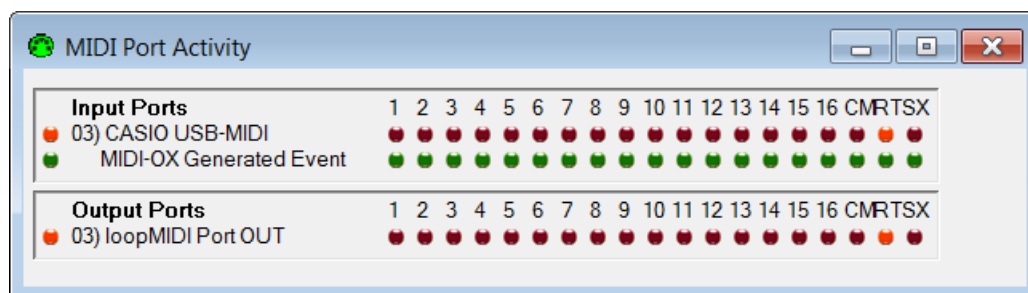
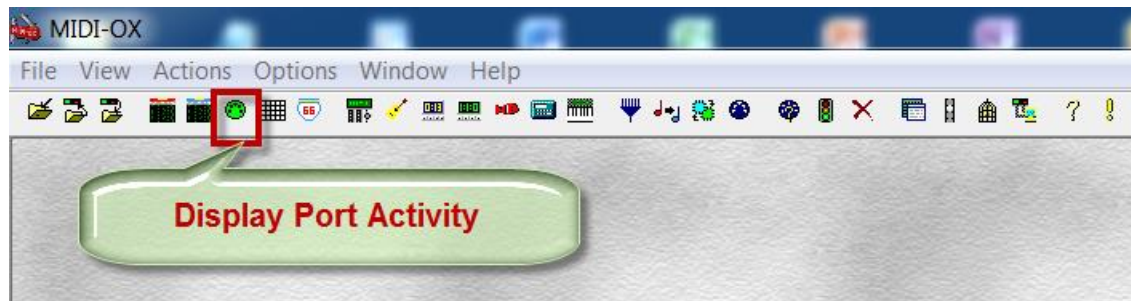


| TIMESTAMP | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT    |
|-----------|----|------|--------|-------|-------|------|------|----------|
| 14449     | 3  | 3    | 144    | 60    | 32    | 1    | C 4  | Note On  |
| 14458     | 3  | 3    | 145    | 60    | 32    | 2    | C 4  | Note On  |
| 14594     | 3  | 3    | 128    | 60    | 64    | 1    | C 4  | Note Off |
| 14594     | 3  | 3    | 129    | 60    | 64    | 2    | C 4  | Note Off |

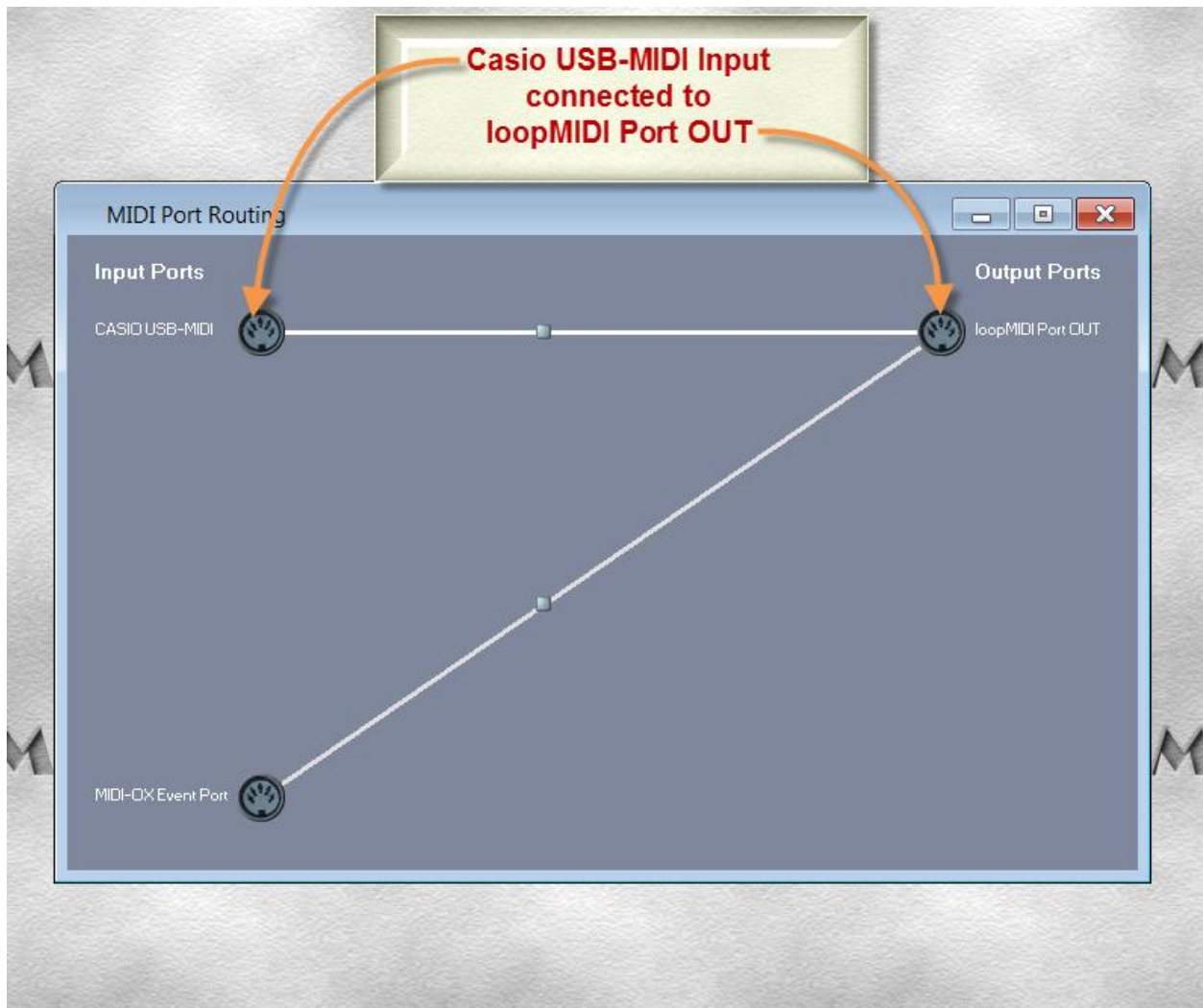
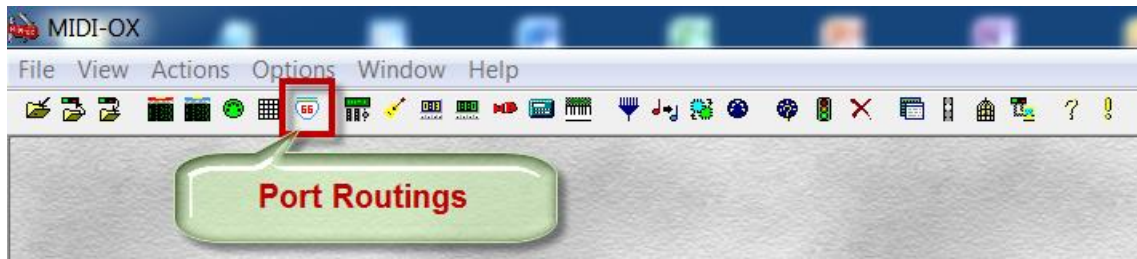
Note doubling may confuse connected applications.

The solution is to turn off voice layering on the Casio.

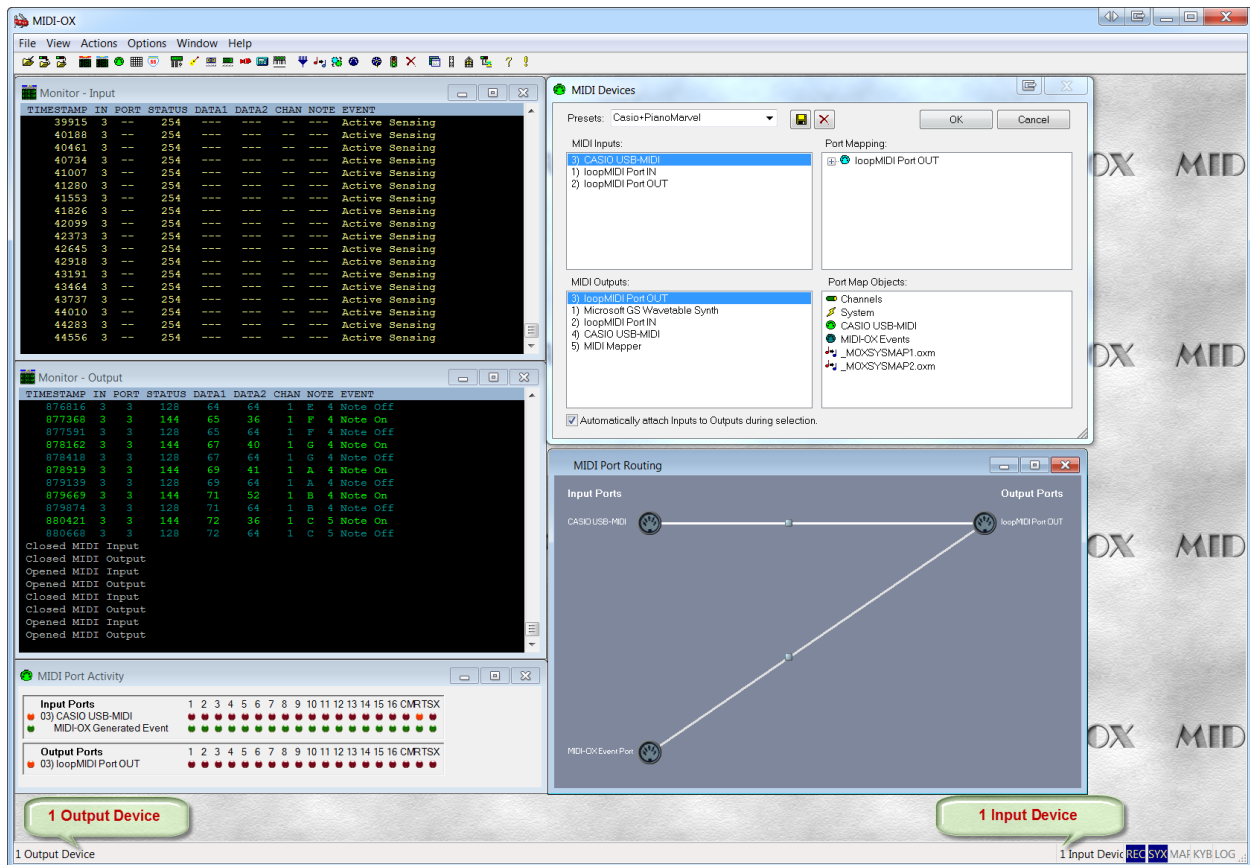
Open the Display Port Activity Monitor



Open the Port Routings Window



These 5 Windows show everything you need.



MIDI-OX is now configured.

Anything you play on the Casio will be sent to the loop back MIDI Output Port.

Next, you will configure PianoMarvel, Chordie and Synthesia to connect to this loop back MIDI Output Port.

### Note:

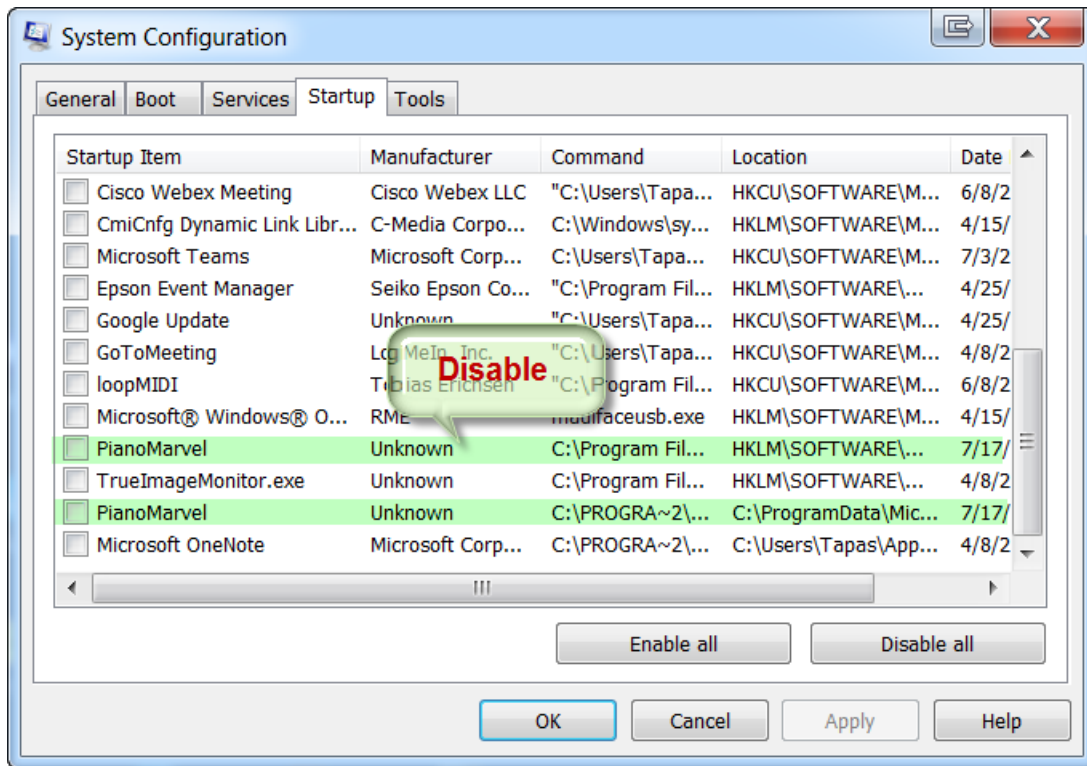
You can now minimize the MIDI-OX Application.  
Do not turn it off.

## Configure PianoMarvel

### Msconfig.exe

Disable all instances of PianoMarvel under Startup.

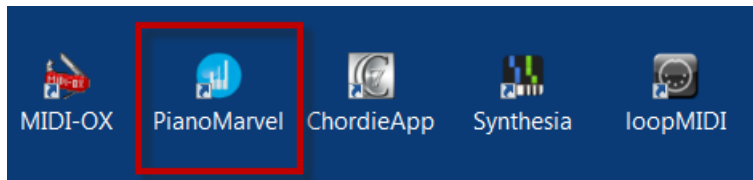
You will be manually launching the PianoMarvel Browser plugin.



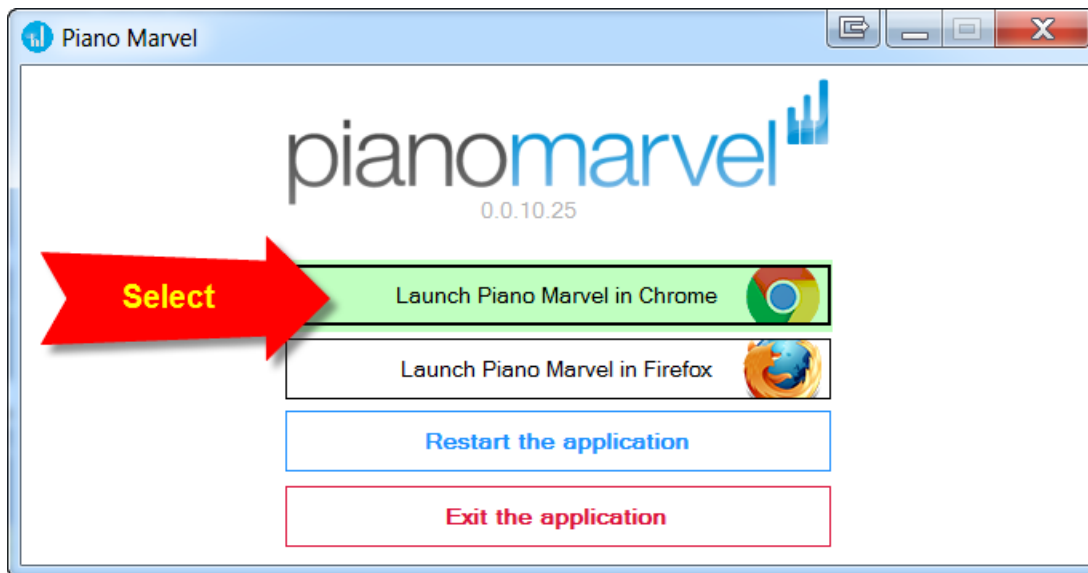
Press OK

You will need to reboot the PC to make these changes.

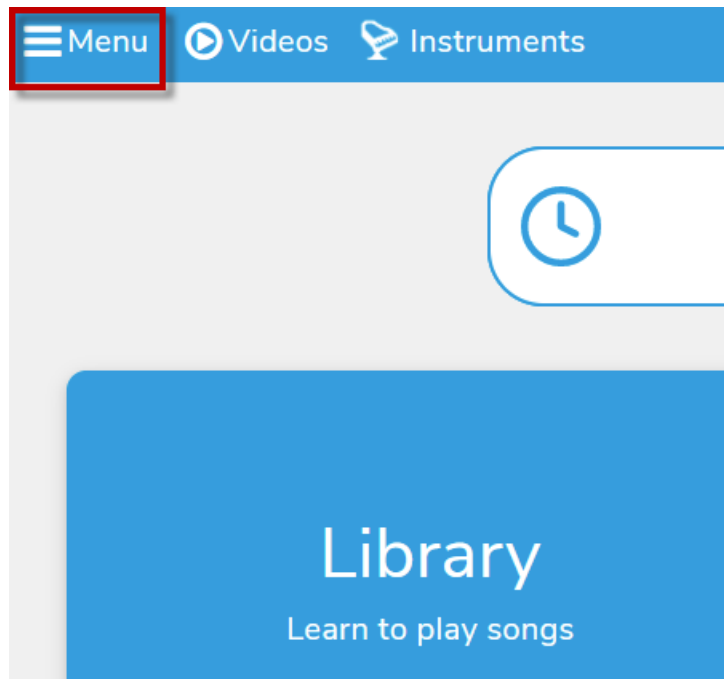
Launch PianoMarvel



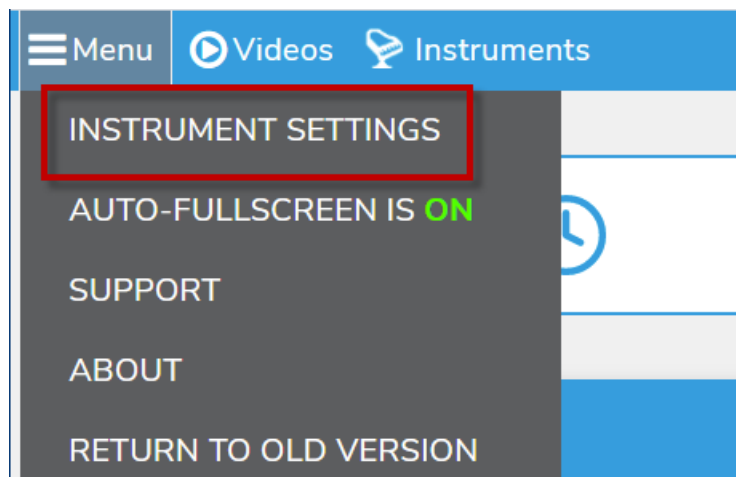
Launch PianoMarvel in Chrome



Open the Menu

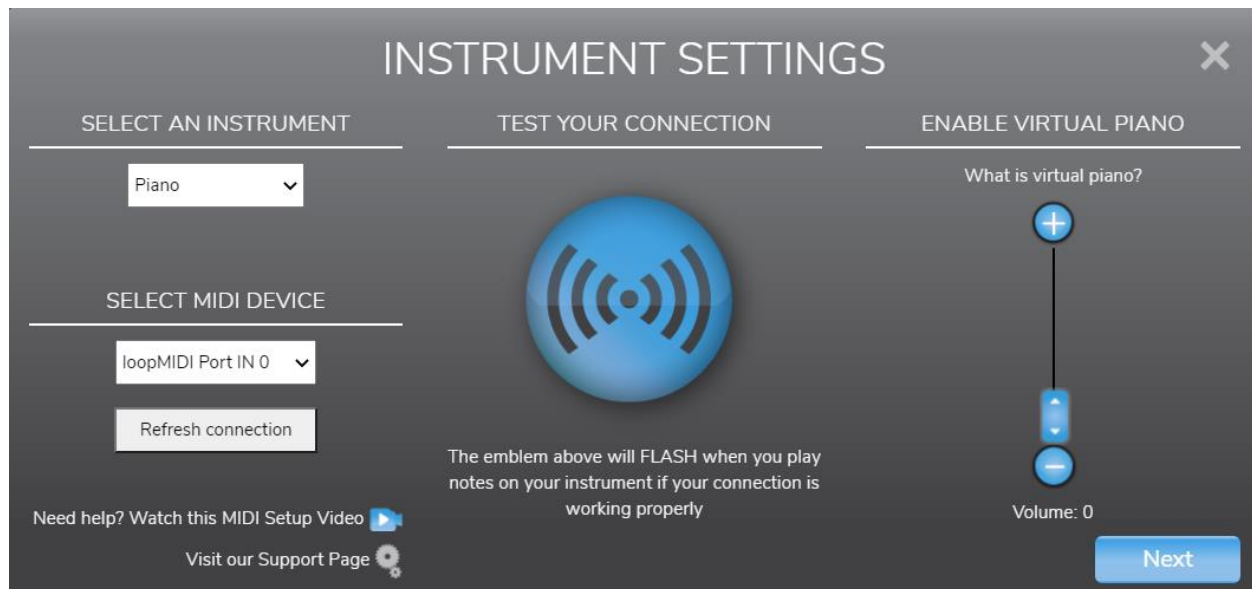


Select Instrument Settings



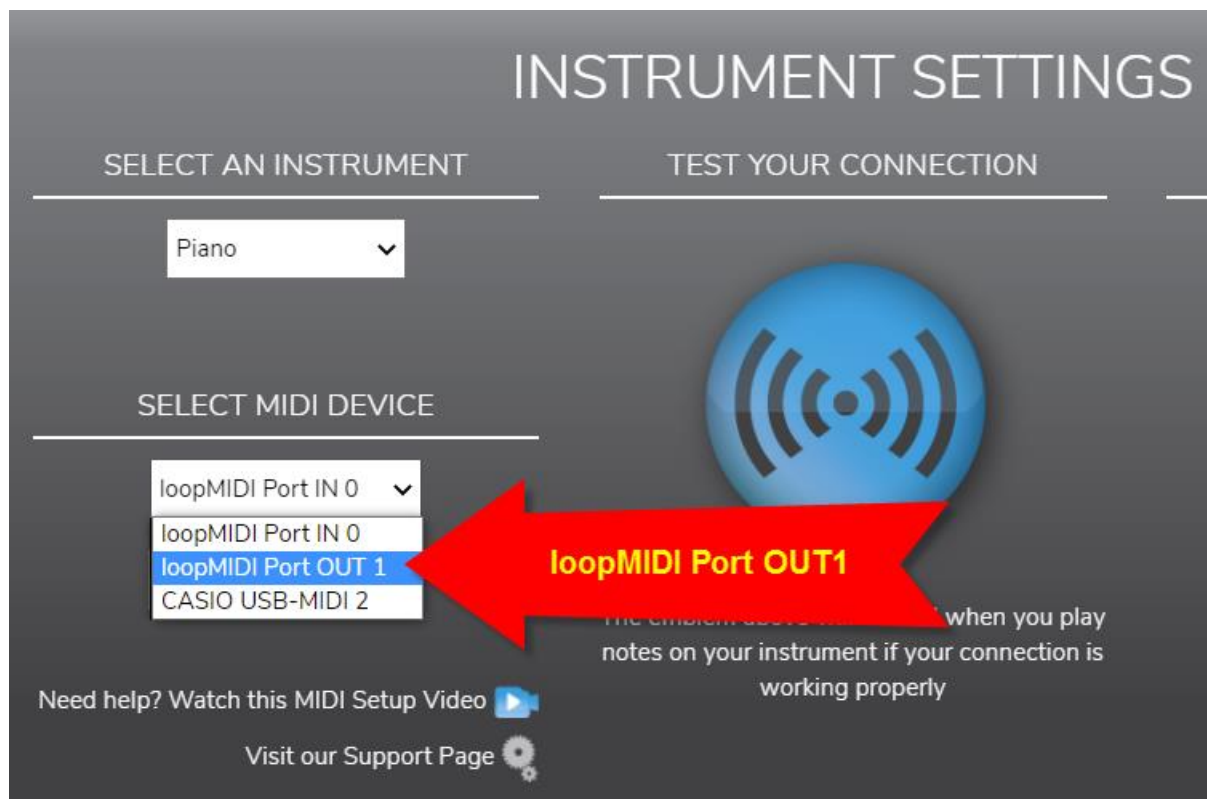


This is your Instrument Settings Dashboard



Select Instrument = Piano

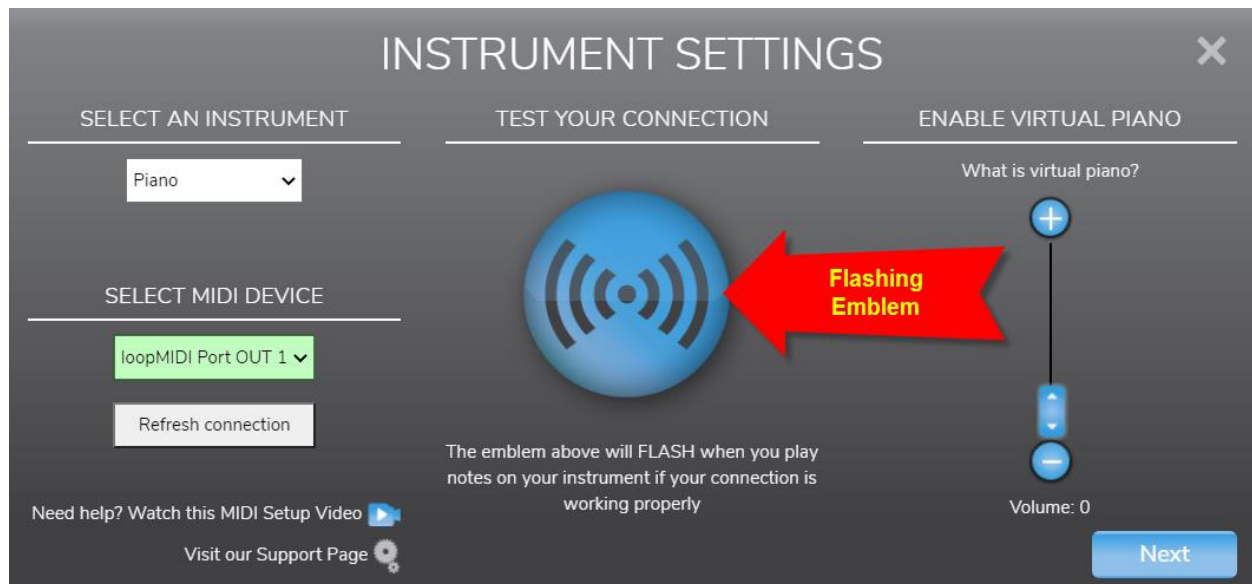
Select MIDI Device = **loopMIDI Port OUT1**



Wait for 5 minutes for PianoMarvel to register this new connection.

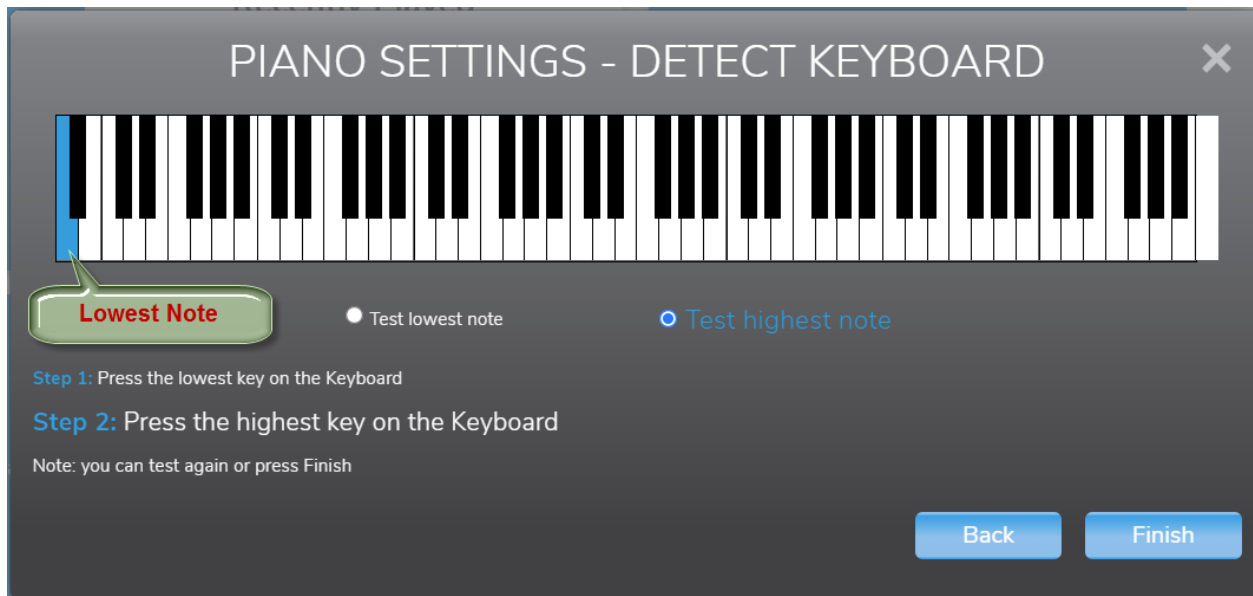
Play some notes on the Casio Digital Piano.

You will see a flashing emblem confirming that PianoMarvel has successfully made the connection.

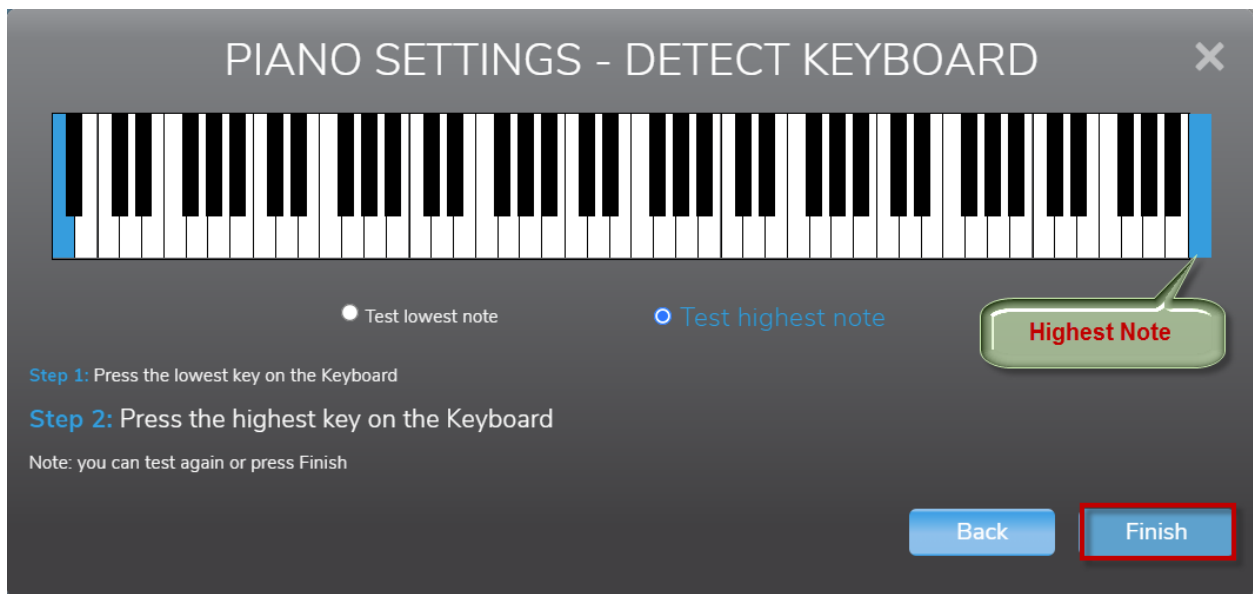


Press Next

Press the lowest note on the Casio Digital Keyboard.

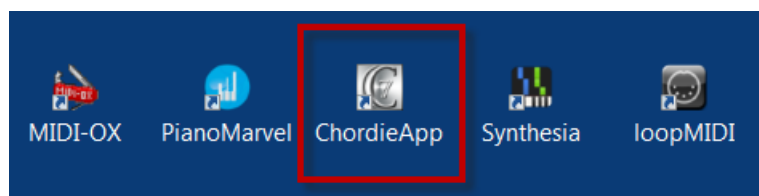


Next, press the highest note on the Casio Digital Keyboard.

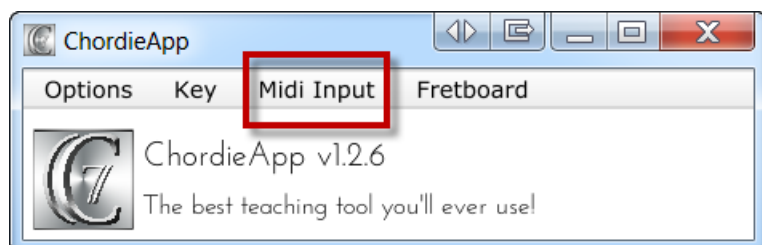


Press Finish

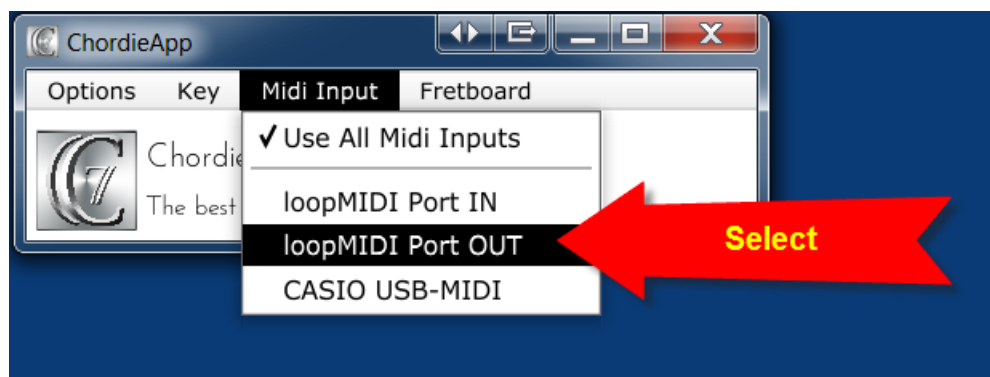
## Configure Chordie



By default, Chordie will listen to all MIDI Inputs.

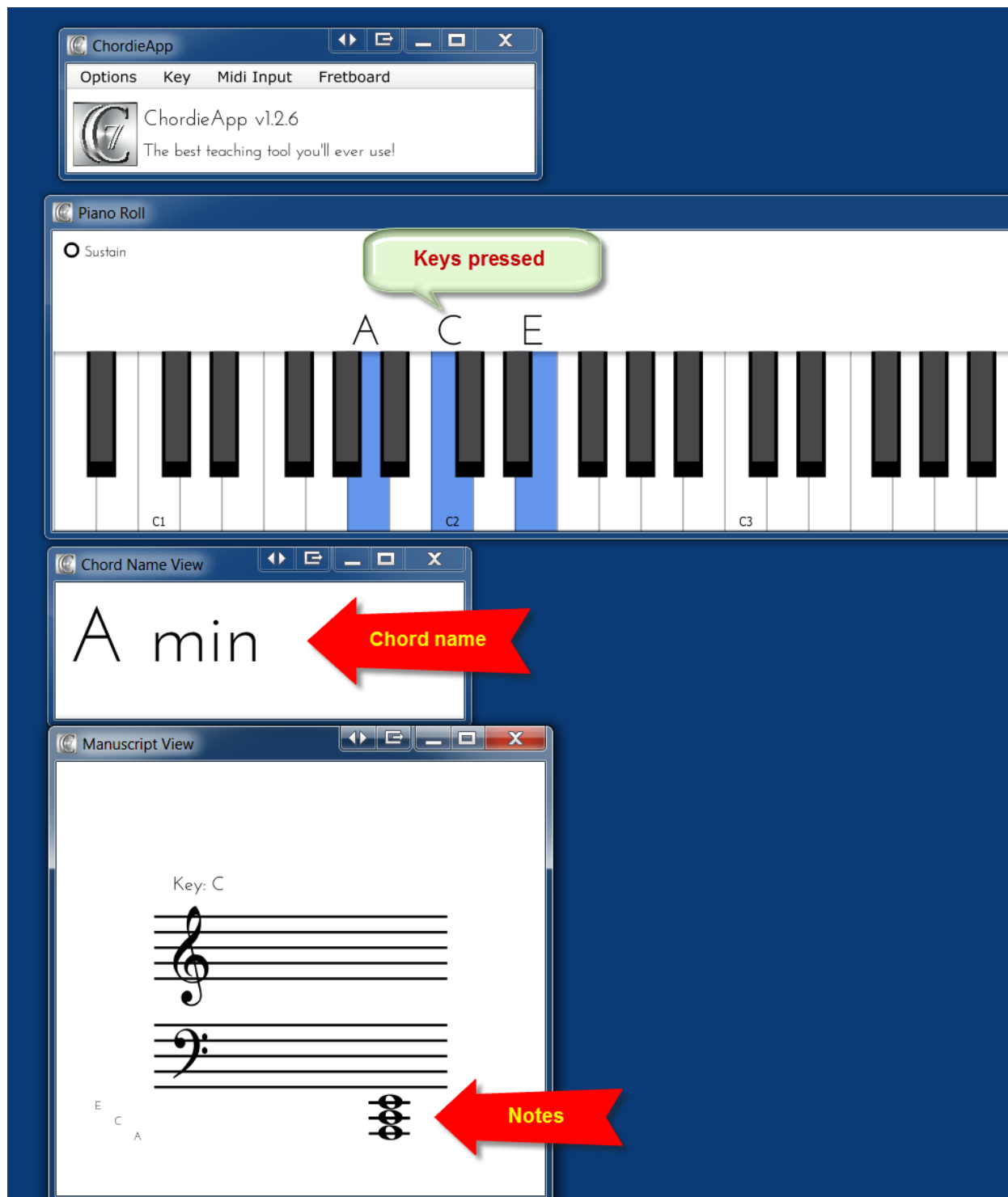


Select MIDI Input = loopMIDI Port OUT



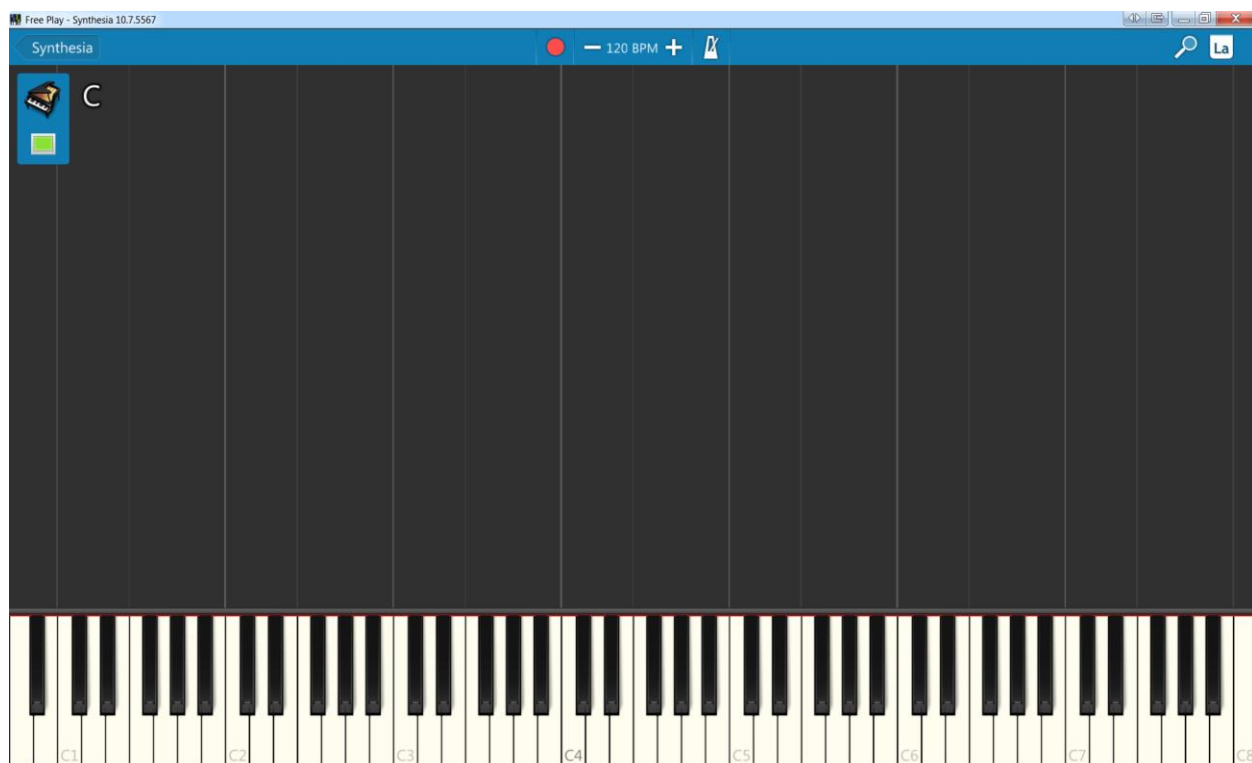
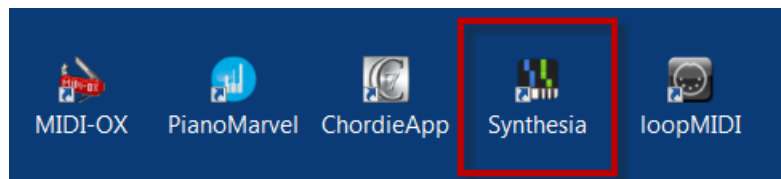
Play a chord on the Casio Digital Piano.

Chordie will display the keys you pressed, the chord name and the notes.

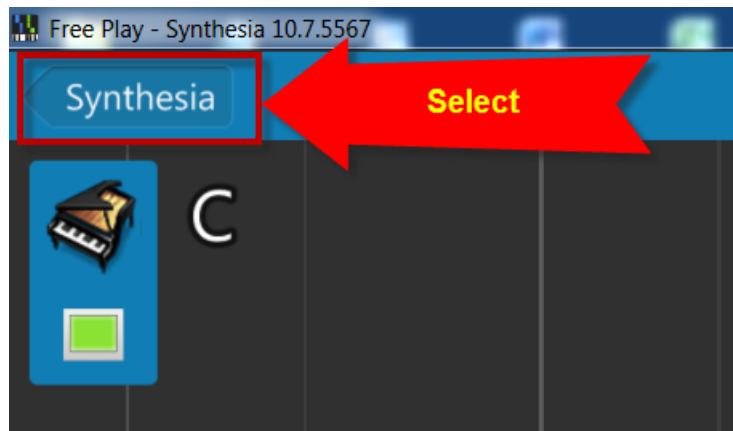


## Configure Synthesia

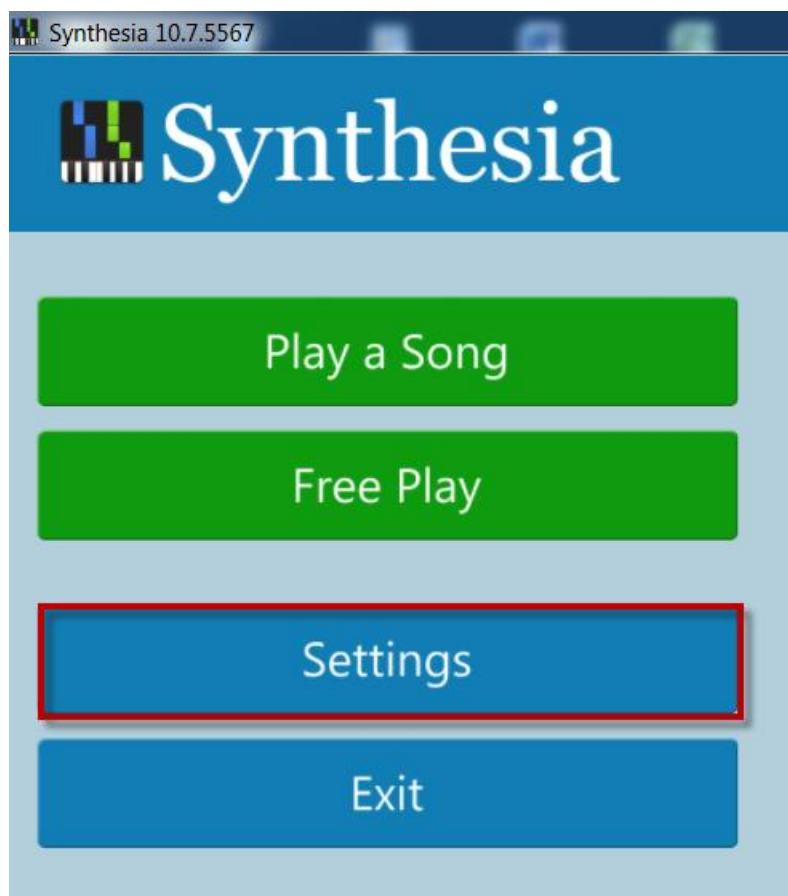
Launch Synthesia



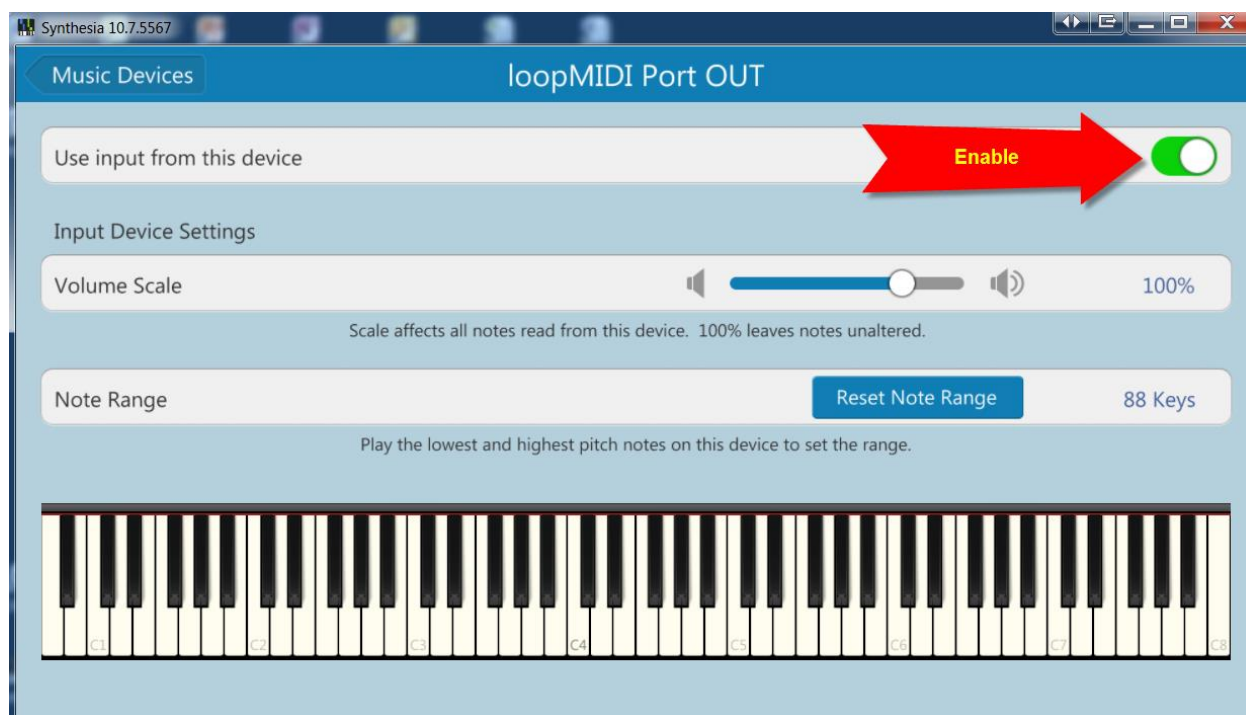
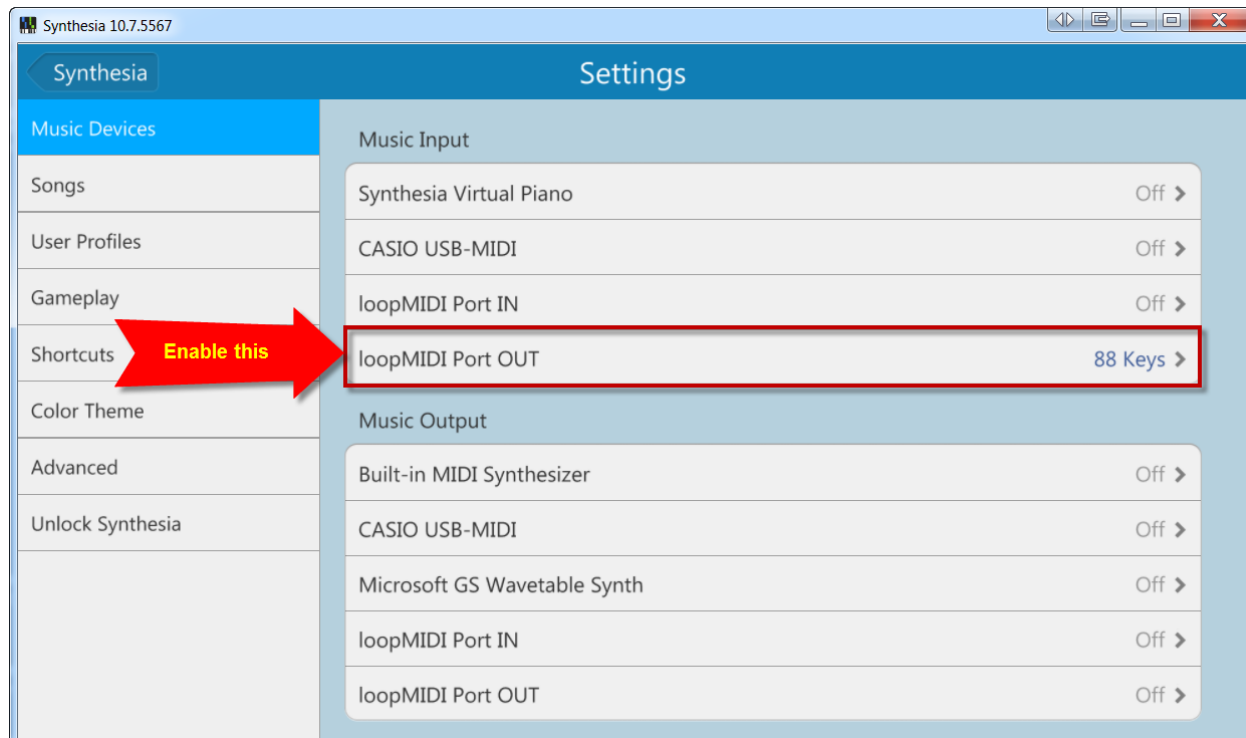
Click on the Synthesia button to access the settings



Select Settings

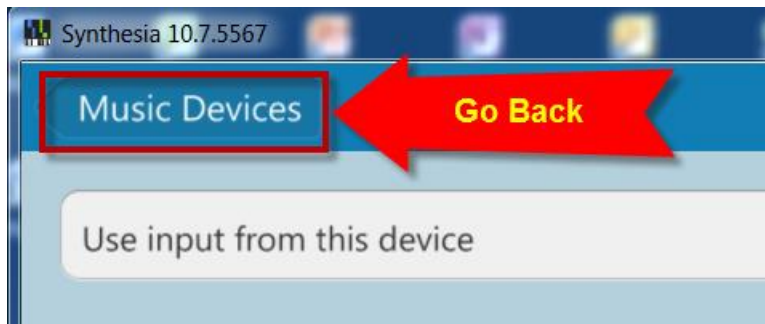


Enable Input = **loopMIDI Port OUT**

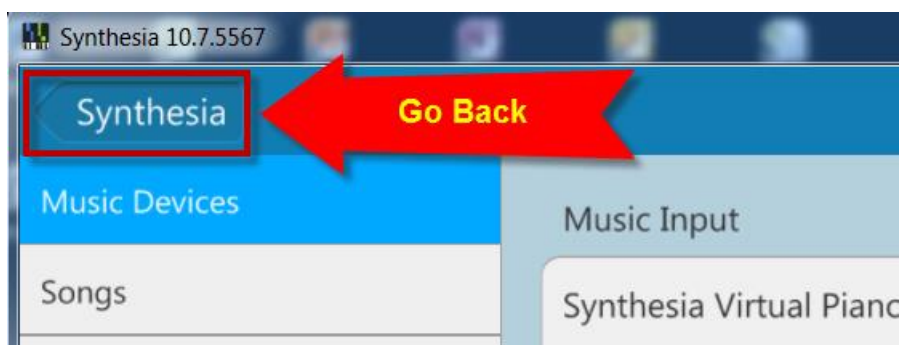




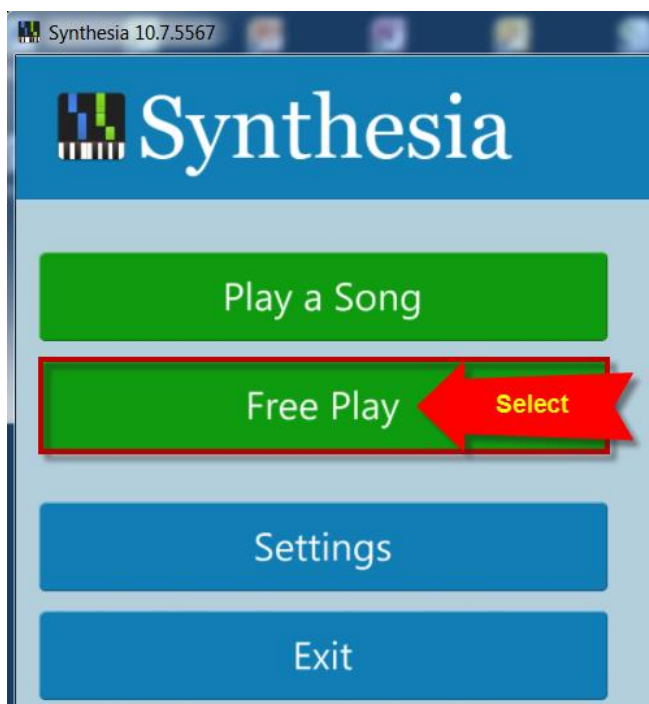
Click on Music Devices to go back



Click on Synthesia to go back

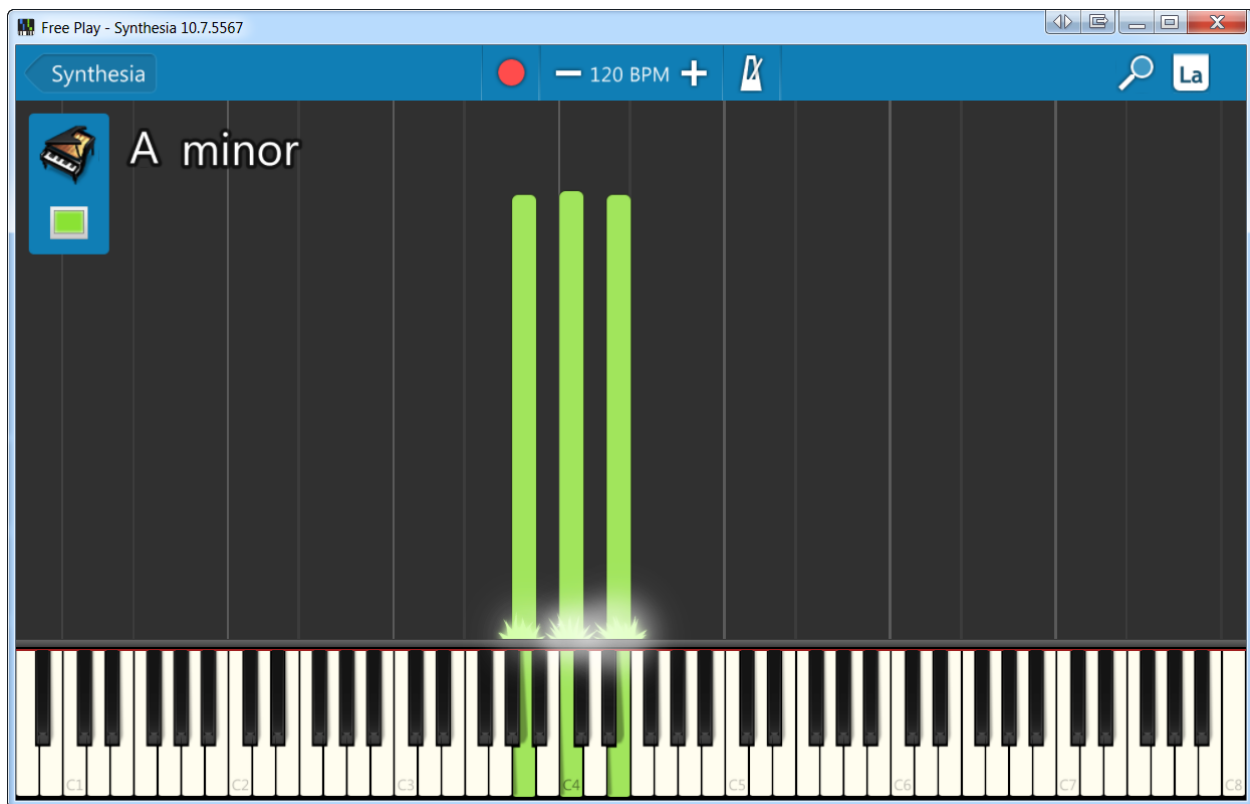


Select Free Play

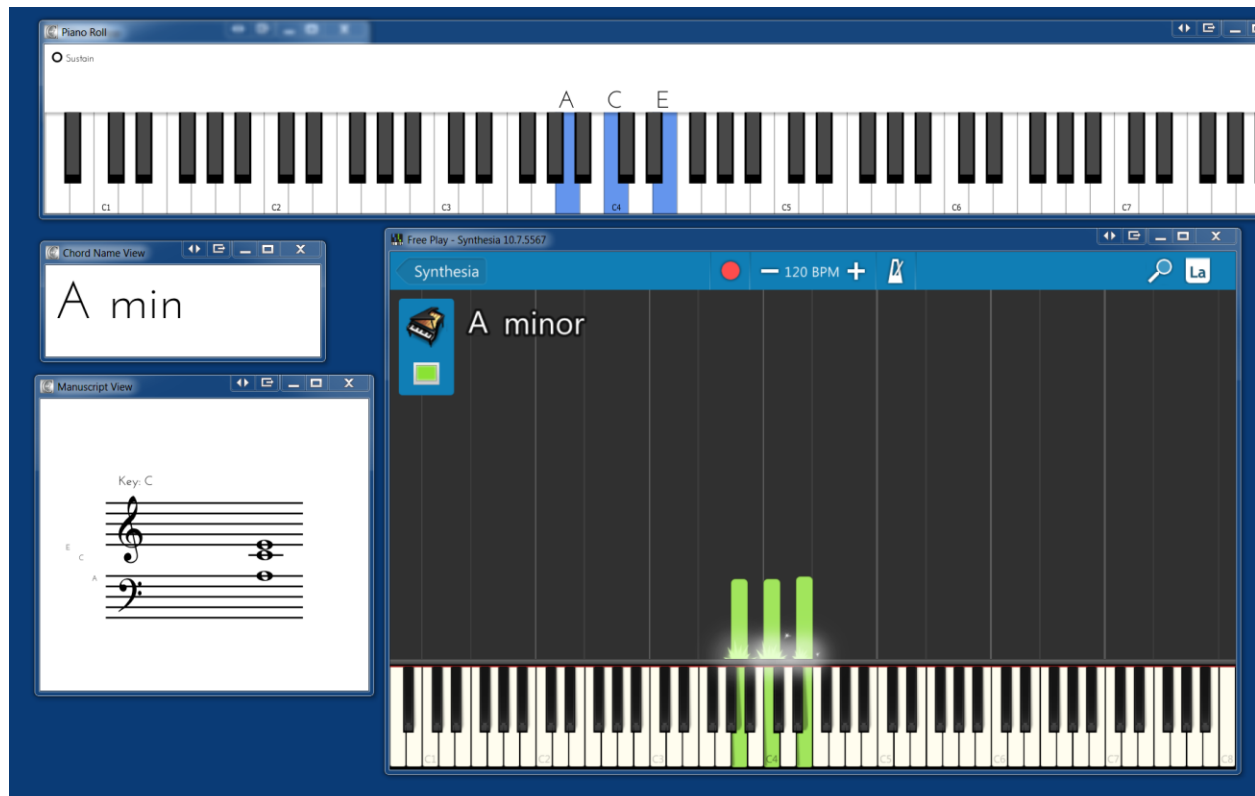


Play a few notes on the Casio digital piano.

The corresponding keys will be highlighted in green by Synthesia



Now both Chordie and Synthesia will respond as you play your Casio Digital Keyboard.



These two applications are handy tools to show what keys, chords and notes you are playing while you practice your songs on PianoMarvel.

You are free to connect other applications to the loopMIDI Port OUT.

Just remember not to use the CASIO USB-MIDI Port. This does not support more than one client.

## Startup Sequence

LoopMIDI, Casio CDP-S350, MIDI-OX, Chordie, Synthesia and PianoMarvel must be started in the following order:

Turn on the PC

LoopMIDI will auto start

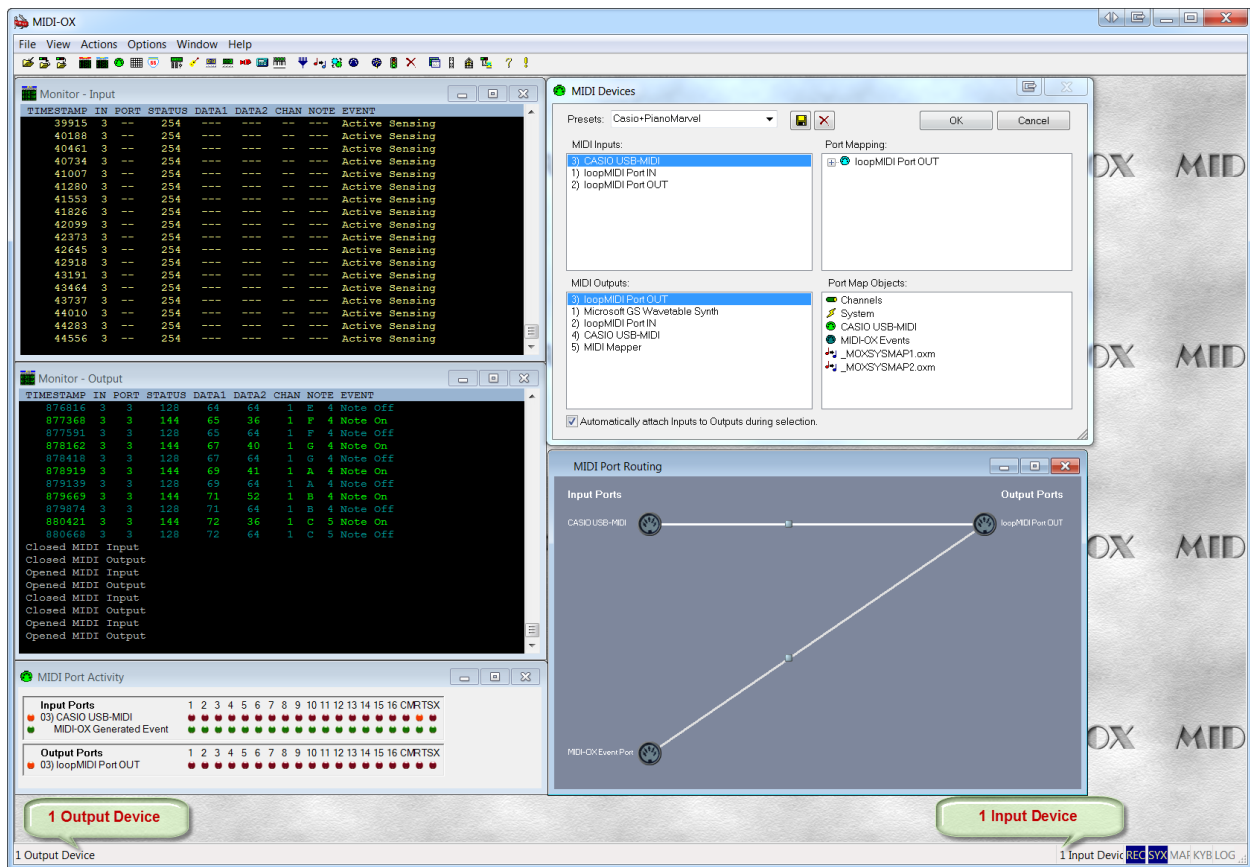
Connect the Casio CDP-S350 to your computer with a USB A to B cable.

Turn on the Casio CDP-S350

Launch MIDI-OX

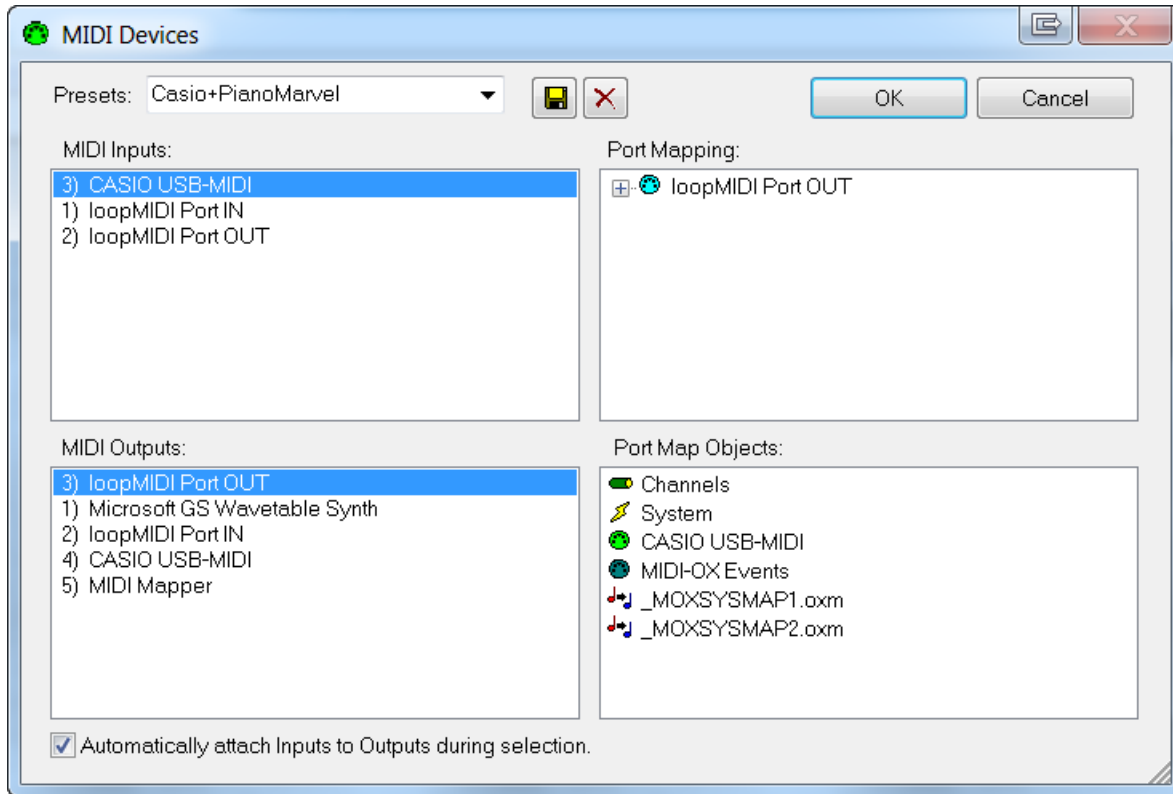
Play a few notes on the Casio

This is what you will see:



If you do not see any active sensing events in the Input Monitor Window, then it means that MIDI-OX is frozen.

To unfreeze, simply open the MIDI Devices



Press OK

The active sensing events will now begin to scroll.

Play a few notes on the Casio

This is how the Input and Output Monitors will appear:

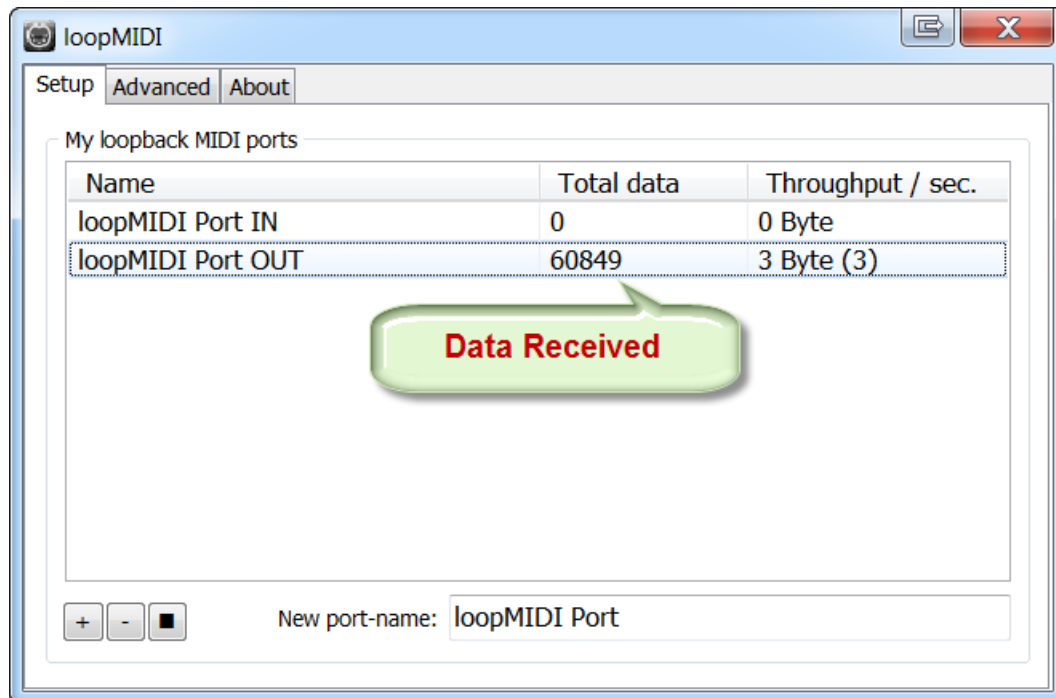
| Monitor - Input |    |      |        |       |       |      |      |                |
|-----------------|----|------|--------|-------|-------|------|------|----------------|
| TIMESTAMP       | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT          |
| 51544           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 51587           | 3  | --   | 144    | 79    | 47    | 1    | G 5  | Note On        |
| 51744           | 3  | --   | 128    | 79    | 64    | 1    | G 5  | Note Off       |
| 51817           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 52090           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 52179           | 3  | --   | 144    | 81    | 42    | 1    | A 5  | Note On        |
| 52267           | 3  | --   | 128    | 81    | 64    | 1    | A 5  | Note Off       |
| 52363           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 52636           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 52909           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 53182           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 53455           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 53728           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 54001           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 54274           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 54547           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 54819           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |
| 55093           | 3  | --   | 254    | ---   | ---   | --   | ---  | Active Sensing |

| Monitor - Output |    |      |        |       |       |      |      |          |
|------------------|----|------|--------|-------|-------|------|------|----------|
| TIMESTAMP        | IN | PORT | STATUS | DATA1 | DATA2 | CHAN | NOTE | EVENT    |
| 47268            | 3  | 3    | 128    | 65    | 64    | 1    | F 4  | Note Off |
| 47626            | 3  | 3    | 144    | 67    | 53    | 1    | G 4  | Note On  |
| 47838            | 3  | 3    | 128    | 67    | 64    | 1    | G 4  | Note Off |
| 48175            | 3  | 3    | 144    | 69    | 53    | 1    | A 4  | Note On  |
| 48280            | 3  | 3    | 128    | 69    | 64    | 1    | A 4  | Note Off |
| 48712            | 3  | 3    | 144    | 71    | 48    | 1    | B 4  | Note On  |
| 48852            | 3  | 3    | 128    | 71    | 64    | 1    | B 4  | Note Off |
| 49270            | 3  | 3    | 144    | 72    | 59    | 1    | C 5  | Note On  |
| 49424            | 3  | 3    | 128    | 72    | 64    | 1    | C 5  | Note Off |
| 49837            | 3  | 3    | 144    | 74    | 51    | 1    | D 5  | Note On  |
| 49984            | 3  | 3    | 128    | 74    | 64    | 1    | D 5  | Note Off |
| 50407            | 3  | 3    | 144    | 76    | 45    | 1    | E 5  | Note On  |
| 50567            | 3  | 3    | 128    | 76    | 64    | 1    | E 5  | Note Off |
| 50972            | 3  | 3    | 144    | 77    | 65    | 1    | F 5  | Note On  |
| 51136            | 3  | 3    | 128    | 77    | 64    | 1    | F 5  | Note Off |
| 51587            | 3  | 3    | 144    | 79    | 47    | 1    | G 5  | Note On  |
| 51744            | 3  | 3    | 128    | 79    | 64    | 1    | G 5  | Note Off |
| 52179            | 3  | 3    | 144    | 81    | 42    | 1    | A 5  | Note On  |
| 52267            | 3  | 3    | 128    | 81    | 64    | 1    | A 5  | Note Off |

Minimize MIDI-OX

The loopMIDI window will show that data is being received by the loopMIDI Port OUT

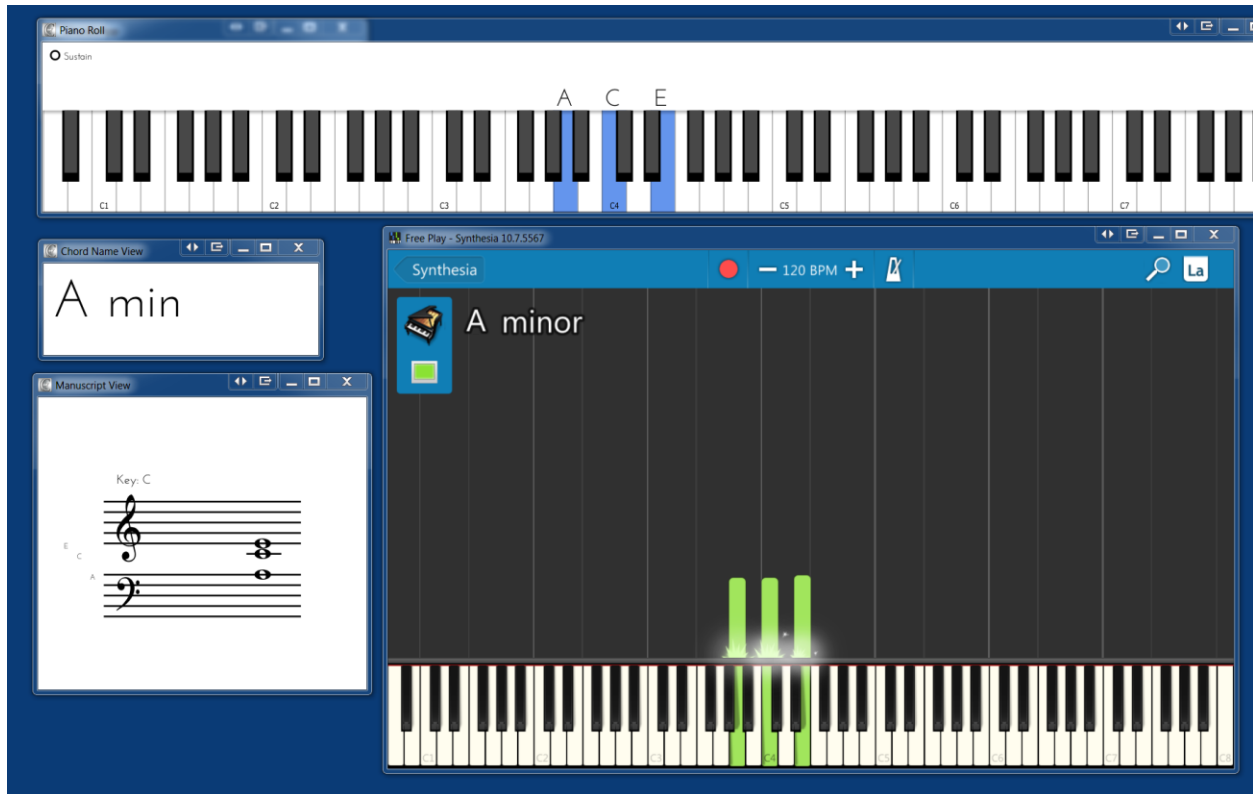


Launch the Chordie App.

Launch Synthesia

Play a few notes on the Casio

This is what you will see:



Launch PianoMarvel

PianoMarvel will remember your previous settings.

Your Casio CDP-S350 Digital Piano will now communicate with PianoMarvel, Chordie and Synthesia all at the same time.