# **Controlling Reaper from Titan on the same PC**

(inspired by Oliver Waits, December 2019)

The idea is to control Reaper (see Software List) in a similar way like Winamp, i.e. start, stop, pause etc.

# **Prerequisites**

- 1. Titan PC-Suite, from v13 on (AvoKey required)
- 2. loopMIDI (see Software List, to route the MIDI signal from one program to another
- 3. Reaper (see Software List)
- 4. macros to send MMC commands, see MIDI Machine Control

5. at least one music track to play with

# Make it run

## 1. loopMIDI

This needs to be started (usually: automatically when Windows starts). By default it provides a virtual MIDI port named loopMIDI Port:

Konfigurati	IoopMIDI     Konfiguration Erweitert Über						
Nam	9		Gesamtdaten	Durchsatz / Sek.			
loopN	IDI Port		0	0 Byte			
+-	Neuer Po	rt-Name: loopM	IIDI Port 1				

Last update: 2020/02/13 external:examples:reaper\_mmc\_on\_same\_pc https://www.avosupport.de/wiki/external/examples/reaper\_mmc\_on\_same\_pc?rev=1581593929 11:38

## 2. Titan PC Suite

Launch Titan PC Suite, load the MMC macros and copy the macros you plan to use on buttons as you like:

Macros						
17 MMC Play	18 MMC Pause	19 MMC Stop	20 MMC Goto Start			
8		10		12		

### 3. Reaper

Launch Reaper and load a track.

In the Options menu select Preferences - this opens the preferences window. Find MIDI devices in the Audio section. This should list loopMIDI Port as MIDI input:

REAPER Preferences	;			<b>₽ ×</b>		
Keyboard/Multitouch Project	*	MIDI hardware settings MIDI inputs to make available (selectable as track	inputs and/or learnat	ole or action-bindable):		
Track/Send Defaults		Device	Mode	ID		
Media Item Defaults Audio Device MIDI Devices Buffering Mute/Solo Playback	ш	loopMIDI Port	Enabled+Control	0		
Seeking Recording Loop Recording	MIDI outputs to make available (selectable as track outputs):  Add joystick MID  Device					
Appearance		Joop MIDL Port		1		
Media Peaks/Waveforms Fades/Crossfades Track Control Panels Editing Behavior Envelope Display		Microsoft GS Wavetable Synth [use cautiously]	<disabled></disabled>	0		
Automation Mouse		Restrict MIDI hardware output to one thread	Parat any 💷 Di-	Reset all MIDI devices		
Mouse Modifiers	Ŧ	neser by. V Ainotes-off V Pitch/sustain	OK	Cancel Apply		

Right-click on loopMIDI Port input and either enable input for control messages from the menu...

🔊 REAPER Preferences 🐥 💌						
Keyboard/Multitouch Project	*	<ul> <li>MIDI hardware settings</li> <li>MIDI inputs to make available (selectable as track inputs and/or learnable or action-bindable):</li> </ul>				
Track/Send Defaults Media Item Defaults Audio Device MIDI Devices Buffering Mute/Solo Playback Seeking Recording	II	Device     Mode     ID       loopMIDI Port     Enabled+Control     0       Configure input     Input ID     ►       Forget device     Enable input     ►       ✓     Enable input     Forget device     ►				
Loop Recording Rendering Appearance Media Peaks/Waveforms Fades/Crossfades Track Control Panels		Device     Mode     ID       loopMIDI Port <disabled>     1       Microsoft GS Wavetable Synth [use cautiously]     <disabled>     0</disabled></disabled>				
Editing Behavior Envelope Display Automation Mouse Mouse Modifiers Find Enab	▼ le the and	Image: Step Stop Stop Stop Stop Stop Stop Stop Sto				

... or select Configure input... and make the settings there:

🕥 REAPER Prefere	nces		X I		
Keyboard/Multitouch Project MIDI hardware settings MIDI inputs to make available (selectable as track inputs and/or learnable or action-bindable):					
Track/Send Defa		Mode	ID		
Media Item Defau	🕥 Configure MIDI Input 🛛 🛛 🕰	Enabled Control	0		
Audio		Linabled+Control	U		
Device	Device name: loop MIDI Port				
MIDI Devices					
Buffering	Allas name: loopivilul Pon				
Mute/Solo	Enable input from this device				
Playback	Enable input for control messages				
Seeking					
Recording	Advanced MIDI event timestamp options	putputs):	Add joystick MIDI		
Loop Recording	O Let REAPER timestamp events (default)				
Kendering	High precision system timestamp (QPC)	Mode	10		
Appearance	Low precision system timestamp (TGT)	<disabled></disabled>	1		
Realize (Mayoform		<disabled></disabled>	0		
Feaks/ waverom	Timestamp precision should be set to match this MIDI input device driver. If the driver precision is unknown, let REAPER				
Track Control Par	timestamp MIDI events.				
Editing Behavior					
Envelope Display	OK Cancel				
Automation					
Mouse	Restrict MIDI hardware output to one thread	l	Reset all MIDI devices		
Mouse Modifiers	Reset by: ♥ All-notes-off ♥ Pitch/sustain	Reset on: 📝 Play	Stop/stopped seek		
Find	Enable the MIDI Input devices you wish to use by right-clicking on the name and selecting Enable Input.	Device OK	Cancel Apply		

Confirm the settings with OK to close the preferences window.

## 4. Try it out

Essentially this should work staright away: in Titan, fire the macro MMC Play and Reaper should immediately start playing - but see below. This also works together with Reaper sending Timecode back into Titan, like described in Sending Timecode from Reaper to Titan on the same PC

Some caveats I found:

- it looks like Reaper wants to be started internally at first before listening to MMC. Thus, you at first need to hit Play in Reaper and stop this with MMC after this you can play/pause/stop from MMC as you like
- reaper seems to be ignorant to device IDs: when changing the macros to a designated device ID (by defaukt it sends to 7F which is All Devices) Reaper still listens and reacts, even with another ID selected in Reaper

## 5. How to debug

If things do not work as expected then there some tools which help finding the fault:

#### 5.1 loopMIDI

loopMIDI shows the number of transmitted data. This number increases with every command. If this number does not increase then Titan doesn't send data.

🖲 loopMIDI			<b>×</b>
Konfiguration	Erweitert Über		
Meine Loopb	ack MIDI-Ports		]
Name		Cubumulaten	Durchsatz / Sek.
loopMIDI	Port	1874	0 Byte
+	Neuer Port-Name:	loopMIDI Port 1	•

#### 5.2 USB Expert Console

Open the USB Expert Console. This must show loopMIDI Port 1 as connected panel (top-left). Select the MIDI tab top-right, click Watch MIDI, in the MIDI watcher window select MIDI Input an Raw MIDI. Now, as you send a command, it is shown in the MIDI watcher:

ile Tools Remote Help						
Reset 💥 Suspend	bern Eventa		Info Service Test Bench MIDI	Timeco	de	
nnected Panels	Fiber	Show / Hide	IoopMIDI Port 1			
GloopHIDI Port 1	Faders	Time Stamp	Mid Watcher			
	MDI Watcher - Ioo	eMIDI Port 1				Watch MID
	MDInest	- Raw MIDI		-		
	F0 7F 7F 06	02 17			Data 1	Data 2
					- 0	0
	-					
nua Heasagea						
<i></i>	_					

#### 5.3 MIDI-OX

Install and launch MIDI-OX (see Software List. From the Options menu select MIDI Devices. Make sure loopMIDI Port is listed as MIDI Input but isn't mapped to any output (yes, you can create a feedback loop, and yes, you do not want to do this...)

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MIDI-OX - [Monitor - Input]						
File View Actions Options Window	Help _ & ×					
🞽 🍃 🕃 🎽 🎬 🗢 🎟 😇 📅 🖌	🏽 📖 🗝 🔤 🎹 👎 🔩 🚳 🚳 🕷 🗶					
TIMESTAMP IN PORT STATUS DATA1 DATA2	CHAN NOTE EVENT					
MIDI Devices	- 23					
Presets:	Cancel					
MIDI Inputs:	Port Mapping:					
1) IoopMIDI Port						
MIDI Outputs:	Port Map Objects:					
1) Microsoft GS Wavetable Synth	Channels					
2) IoopMIDI Port 3) MIDI Mapper	System					
	MIDI-OX Events					
	JMOXSYSMAP1.oxm					
Automatically attach Inputs to Outputs during selection.						
No	LOG					

From the View menu select Input Monitor.... In this window, all incoming MIDI data are shown. You will see anything when you fire a command in Titan:

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