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					
Nam			Gesamtdaten	Durchsatz / Sek.	
loopN	IDI Port		0	0 Byte	
+-	Neuer Po	rt-Name: loopM	IIDI Port 1		

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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	e	10	11	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	;			₽ ×			
Keyboard/Multitouch Project	*	MIDI hardware settings MIDI inputs to make available (selectable as track inputs and/or learnable 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):					
Rendering		Device	Mode	ID			
Appearance		loopMIDI Port	<disabled></disabled>	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		Reset all MIDI devices			
Mouse Mouse Modifiers	-	Reset by: 🔽 All-notes-off 🔽 Pitch/sustain	Reset on: 🔽 Play	Stop/stopped seek			
Find			ОК	Cancel Apply			

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

🦻 REAPER Preferences 🐺 🐺						
Keyboard/Multitouch Project	MIDI hardware settings MIDI inputs to make available (selectable as track inputs and/or learnable or action-bindable):					
Track/Send Defaults Media Item Defaults Audio Device MIDI Devices Buffering Mute/Solo Playback Seeking	II	Device Mode ID loopMIDI Port Enabled+Control 0 Configure input Input ID ► Forget device Enable input •				
Recording Loop Recording Rendering Appearance Media Peaks/Waveforms Fades/Crossfades Track Control Panels Editing Behavior Envelope Display		Image: Constraint of the second se				
Automation Mouse Mouse Modifiers	-	Image: Reset by: Image: All-notes-off Image: Reset by:				
Find Enable the MIDI Input devices you wish to use by right-clicking on the Device OK Cancel Apply						

... 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	Levice	Mode	ID			
Media Item Defau	🕥 Configure MIDI Input 🛛 🛛 🕰	Enabled+Control	0			
Audio			U			
Device	Device name: loop MIDI Port					
MIDI Devices	Alias name: loop MIDL Port					
Buffering	Alias name: loop MIDI Port					
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	 Let REAPER timestamp events (default) 	Mode	ID			
Rendering	High precision system timestamp (QPC)		10			
Appearance Media	Comparison System timestamp (TGT)	<disabled></disabled>	1			
Peaks/Waveform		<disabled></disabled>	0			
Fades/Crossfade	Timestamp precision should be set to match this with input					
Track Control Par	Constants MIDI supports					
Editing Behavior						
Envelope Display	OK Cancel					
Automation						
Mouse	Restrict MIDI hardware output to one thread	l	Reset all MIDI devices			
Mouse Modifiers	Reset by: Il All-notes-off Il 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			×
Konfiguration	Erweitert Über		
Meine Loopb	ack MIDI-Ports		
Name		2.Journalisten	Durchsatz / Sek.
loopMIDI	Port	1874	0 Byte
+ • •	Neuer Port-Name:	loopMIDI Port 1	•

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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:

USB Expert Console 6.7.71.5					
File Tools Remote Help					
C Reset 💥 Suspend	Bern Eventa		Info Service Test Bench MIDI	Timecode	
Connected Panels	Fiber Leds	Show / Hide	loopMIDI Port 1		
C G loop HIDI Port 1	V Faders	Time Stamp	Mid Watcher		
N	IDI Watcher - loopMI	DI Port 1			Watch MIDI
	MIDI Input	 Raw MIDI 	-	Data	Data 2
1	FO 7F 7F 06 02	177		-	
				• 0	÷ 0 ÷
Status Messages					
Fiter:					
				*	
			J		
Oear		Gear			
 ACW USB service connected 					

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