



November, 2008

## **Toggle Bit IR Codes**

Toggle bit IR codes, in simple terms, means that there are two full sets of IR codes for the entire remote (two codes for every button on the remote control). In order to control devices with toggle bit IR codes, you will need to create a macro for each function of your device, as displayed in the screen shot below. Using the Integration Designer macro option, drag the "a" and the "b" version of the code into the macro editor, and place between the toggle brackets. This will allow the RTI control device to simulate the functions of the manufacturer's remote.

Macro Editor (Standalone Mode) - [1]	? 🛛
arb: Toggle between the following two codes -  -  -  -  -  -  -  -  -  -  -  -  -	Command Type: Explain a+b Toggle IR Code
	There are no options for this command.
OK Cancel Report Drag steps to the trash to delete them.	Drag this icon to add a new step to the macro.

When learning codes from a toggle bit remote, you will need to learn both versions of infrared code that exist on each button into the IR Library of Integration Designer. You will need to duplicate each function name, as shown below, when preparing to learn a toggle device into the IR library. After entering the function names, you are ready to learn both versions of the code. Remember that each button press of a toggle bit device will alternate between two different IR codes.

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User	Microsoft / V	Vindows Media Cer	nter / M(	CE (Toggle F	ait)
- 🧰 Funai					
Microsoft	Function	Frequency		Sustain	
😑 🧰 Windows Media Center	• 0	36.1 KHz	1	✓	
— ∰ MCE (Toggle bit)	• 06	36.1 KHz	1		
	•1	36.0 KHz	1		
	• 1b	36.1 KHz	1		
	• 2	36.1 KHz	1		
	• 26	36.1 KHz	1		
	• 3	36.1 KHz	1		
	• 36	36.1 KHz	1		
	• 4	36.1 KHz	1		
	• 4b	36.1 KHz	1		
	•5	36.1 KHz	1	No. 1	
	• 5b • 6	36.1 KHz	1		
		36.1 KHz	1		
	• 66	36.1 KHz	1	M	

## Troubleshooting

Common indication a device uses toggle bit IR codes:

After learning commands from remote (using standard code capture procedure) a command will work once, but upon pressing same command again, it does not work. Pressing alternate buttons on the same remote for the same device will work (For example, pressing cursor commands "up, down, left, right" works fine, but pressing "up, up" does not.)

## Popular toggle bit devices include, but not limited to: Media Center products, Arcam, XM Radio products, X-Box 360, Philips products

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