

Setting Up the New Input Echo Tool By Cristhian Bermudez

Some years ago, we developed Input Echo as a tool that allows the user to connect to a serial or network port, redirect the information, and store a file with all the data crossing. It was a useful tool to generate a file that was used for performing post-processing of certain inertial systems.

I have suggested this tool for some other applications, since it can redirect messages received on a serial port to UDP packets. We identify this is something useful on certain cases where the users need to share the information to different equipment on a setup.

As you may know, a serial interface can be opened by one program at a time. Input Echo can open the serial interface and you will be able to have multiple outputs. In the same way, in certain cases with TCP connections it is only possible to have one client connected, in this case Input Echo will be able to open the TCP connection to keep the communication flowing and at the same time redirect the information to other interfaces or a file.

The new concept of Input Echo is simple, you can run the program and open a connection to a serial or network interface. Then you have to use at least one output. It will allow the user to open several outputs, I will describe that later in this article.



Disclaimer: This cannot be used on every case, there are some devices that require to receive a message to start sending data. It is pretty much like a request of data, if the request is not received the sensor or device doesn't start sending information.

The data only flows in one direction, from the input to the output.



Now, let's see how we can start using Input Echo. The first step is opening the program, to do so, you have to go to the HYPACK installation folder, in this case I am using HYPACK 2024.

С	🖵 🔸 This PC 🔸 Local Disk	: (C:) > Hypack 2024		
Q	î @ ¢ ŵ ↑↓	Sort ~ 🔳 View ~		
E	Name g Hyscan_beta.exe	Date modified 4/4/2024 10:33 AM	Type Application	Size 2,980 KB
£	# Hysweep.exe	10/16/2024 5:39 PM	Application	4,594 KB
-	P IFFilter.exe	12/15/2021 12:53 PM	Application	353 KB
٩	IGRF.dll	12/15/2021 12:53 PM	Application extens	25 KB
	IGRF11.COF	1/23/2015 4:15 PM	COF File	140 KB
	IGRF13.COF	3/3/2020 3:34 PM	COF File	148 KB
	indy60.bpl	2/1/2002 12:00 PM	BPL File	502 KB
	IndyCore280.bpl	3/29/2023 11:09 PM	BPL File	400 KB
	IndyCore290.bpl	8/31/2024 6:37 AM	BPL File	401 KB
	IndyProtocols280.bpl	3/29/2023 11:09 PM	BPL File	2,624 KB
	IndySystem280.bpl	3/29/2023 11:09 PM	BPL File	311 KB
9	InfoOffsets.dll	12/15/2021 12:53 PM	Application extens	873 KB
1) InputEcho.exe	9/25/2024 4:13 PM	Application	4,127 KB
×	Intersector.exe	12/15/2021 12:53 PM	Application	295 KB
9	iothub_client_dll.dll	4/6/2023 10:07 AM	Application extens	678 KB
9	ippcore-6.0.dll	12/15/2021 12:53 PM	Application extens	116 KB

You can pin the program to the taskbar and create a shortcut, but don't copy the file, it needs to be used from the HYPACK installation folder.



Depending on the connection type selected, you need to configure different parameters, I am not going to cover specifics for each connection type, there are some articles and the manual where that is covered with more detail.

Input Echo	-		×	Input Echo	-	×	Input Echo	-		×
Input Output 1				Input Output 1			Input Output 1			
Connection Type	Serial Port		~	Connection Type	Parallel Port	~	Connection Type Network F	Port		~
Serial Parameters Port COM1 Data Bits 8 Parity None	 Speed Stop Bits Flow Control 	600	\mathbf{x}	Parallel Parameters Port LPT1	~		Protocol UDP V Rol Host 127.0.0.1 Port 1100	e Client	~	

The program by default opens an output, if you want to open more than one, you have to press the "Add Output" button.

🕽 Input Echo	- 0	×	
Input Output 1 Output 2			
Connection Type Network Port		~	
Network Parameters Protocol UDP V Role Host 127.0.0.1 Port 5656	Client ~		
Add Output Remo	ve Output 🔸]	Removing an output only Works when the output tab is open
Split Files at 1 Size(M	8)		

Having a serial or network interface as an output it will require to enter the specific parameters, like baud rate, port, protocol, IP address, etc.

Input Echo also brings the possibility to save the data into a binary file, as the connection type, "File" needs to be selected, the using the dialog it is necessary to select the folder where the file is going to be stored.

It is possible to split the file using the file size option, it will create a new file with a suffix at the end.

) Input Echo		—		×	
Input Output 1 Ou	itput 2				
Connection Type	File			~	
Data File <u>C:\Users\david\</u> (DneDrive\Escrit	orio\Test2.l	bin		Destination file
Add Output	Re	move Outp	ut		
Split Files at	1 Size	e(MB)		•	File size
s	top	Close			
					Dacket size and

As you can see in the following image it is possible to have multiple instances of Input Echo. Yes, what I am saying you can open several Input Echo windows that also can have multiple outputs. It makes it very useful for different applications.

Input Echo	- 0 ×	Input Echo	- 🗆 ×	Input Echo — 🗆
nput Output 1 Out	put 2	Input Output 1 Output 2	Output 3 Output 4	Output 4 Output 5 Output 6
Connection Type	Network Port ~	Connection Type Ser	ial Port $$	Input Output 1 Output 2 Output 3
Network Parameters		Serial Parameters		Connection Type Network Port ~
Protocol UDP	✓ Role Client ✓	Port COM1 ~	Speed 9600 V	Network Parameters
Host 127.0.0.1		Data Bits 8 🗸	Stop Bits 1 V	Protocol TCP V Role Server V
Port 1100		Parity None V	Flow Control None V	
				Port 4812
Add Output	Remove Output	Add Output	Remove Output	Add Output Remove Output
Solit Files at	1 Size/MB)	Solit Files at 100	Size (MB)	Solit Files at 100 Size (MR)
- opirer nes at	- Direction	- opieries at 100		Gippinet lies at 100 Size(Pib)
	on Close	Start	Close	Start Close
Sta				

The last step is pressing "Start" button to send the data to the configured outputs.