

## Question:

How do you use IR ports for RS-232 control of a device?

## Answer:

All integrated controllers, from Axcent 3, to NI-x000, NI-x100, NX-x200, and also EXB-IRS4, DXLINK endpoints support this feature.

You can set the IR port to DATA mode, and it will send out signals coded in RS232 format. This should not be confused with SERIAL mode, which is just inverted IR. DATA mode is one-way only! There is no input or receive data pin to connect. This limits the use of the DATA mode to devices from which we do not need to get responses.

We can set the port up using SEND\_COMMANDS from terminal or the program.

Using Send Commands, the following two commands would be issued in program startup, online event or in terminal.

```
SEND_COMMAND DEV:PORT:SYS, 'SET MODE DATA'
```

```
SEND_COMMAND DEV:PORT:SYS, 'SET BAUD 9600,N,8,1'
```

**Note:** The Data mode has another limitation that may make it unusable, in some cases. The signal is not as strong as our RS232 ports. We are forcing an IR driver to emulate RS232, and the voltage level is about half of our normal output (around 5volts). This means that the signal cannot carry as far and may not be 'clean' enough for some devices. There is also a limitation on baud rates. In other words, if it doesn't work, there is not much we can do about it.

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