Interface Control (0x7F,0x02)

Description	**Reassign data protocols, both incoming and outgoing.**
Notes	Responds over the port that sent the command with an ACK/NACK immediately after the operation is complete. It is the user's responsibility to not send any critical information or commands while awaiting a response! Doing so while this command processes may cause those packets to be dropped. Constraints: - Limited parsers and data streams are available. Refer to your device manual for more information. - The Main port always has a MIP parser and MIP data stream bound. Additionally, Main is the only port that can process interface control commands. If response is NACK, no change was made. Here's what can cause a NACK: - The requested protocol isn't supported on this device, or on this port, or this device doesn't support that many parsers. - The request would break the general constraints listed above, or a device-specific constraint.

Parameter Name	**Data Type**	**Description**
Field Length	*u8*	*12*
Descriptor	*u8*	*0x02*
Function Selector	u8	This command supports the following MIP function selectors: `Write Read Save Load Default [WRSLD]`
Port `[WRSLD]`	u8 enum	Which physical interface is being selected (USB, serial, etc)

Name	**Value**	**Description**
ALL	0	
MAIN	1	An alias that directs to Main USB if it's connected, or Main UART otherwise
UART_1	17	Depending on your device, this may mean either the first UART *currently configured*, or the first port on which UART *can be configured*. Refer to your device manual.
UART_2	18	
UART_3	19	

		<table><tr><td>USB_1</td><td>33</td><td>The first virtual serial port over USB (ie. COM5)</td></tr><tr><td>USB_2</td><td>34</td><td>The second virtual serial port over USB (ie. COM6), only available on GNSS/INS devices. Recommended for NMEA/RTCM.</td></tr></table>
Protocols Incoming [W]	u32 bitfield	Input protocol(s) the port will accept. If the protocol supports ACK/NACK or detailed responses, it will be sent over this port even if no corresponding output protocol is set. <table><tr><th>Name</th><th>Bit(s)</th><th>Description</th></tr><tr><td>MIP</td><td>0</td><td>Microstrain Inertial Protocol</td></tr><tr><td>NMEA</td><td>8</td><td></td></tr><tr><td>RTCM</td><td>9</td><td></td></tr><tr><td>SPARTN</td><td>24</td><td></td></tr></table>
Protocols Outgoing [W]	u32 bitfield	Data protocol(s) the port will output <table><tr><th>Name</th><th>Bit(s)</th><th>Description</th></tr><tr><td>MIP</td><td>0</td><td>Microstrain Inertial Protocol</td></tr><tr><td>NMEA</td><td>8</td><td></td></tr><tr><td>RTCM</td><td>9</td><td></td></tr><tr><td>SPARTN</td><td>24</td><td></td></tr></table>
Ack/Nack Reply	**See standard MIP ack/nack reply format.**	
Response Data	**Data Type**	**Description**
Response Length	*u8*	*11*
Response Descriptor	*u8*	*0x82*
Port	u8 enum	Which physical interface is being selected (USB, serial, etc) <table><tr><th>Name</th><th>Value</th><th>Description</th></tr><tr><td>ALL</td><td>0</td><td></td></tr><tr><td>MAIN</td><td>1</td><td>An alias that directs to Main USB if it's connected, or Main UART otherwise</td></tr><tr><td>UART_1</td><td>17</td><td>Depending on your device, this may mean either the first UART *currently configured*, or the first port on which UART *can be configured*. Refer to your device manual.</td></tr><tr><td>UART_2</td><td>18</td><td></td></tr><tr><td>UART_3</td><td>19</td><td></td></tr><tr><td>USB_1</td><td>33</td><td>The first virtual serial port over USB (ie. COM5)</td></tr><tr><td>USB_2</td><td>34</td><td>The second virtual serial port over USB (ie. COM6), only available on GNSS/INS devices. Recommended for NMEA/RTCM.</td></tr></table>
Protocols Incoming	u32 bitfield	Input protocol(s) the port will accept. If the protocol supports ACK/NACK or detailed responses, it will be sent over this port even if no corresponding output protocol is set.

		Name / **Bit(s)** / **Description** MIP / 0 / Microstrain Inertial Protocol NMEA / 8 / RTCM / 9 / SPARTN / 24 /
Protocols Outgoing	u32 bitfield	Data protocol(s) the port will output **Name** / **Bit(s)** / **Description** MIP / 0 / Microstrain Inertial Protocol NMEA / 8 / RTCM / 9 / SPARTN / 24 /