

# Technical Note



## Fairbanks Weighing Systems to RIO with AN-X2-AB-DHRIO

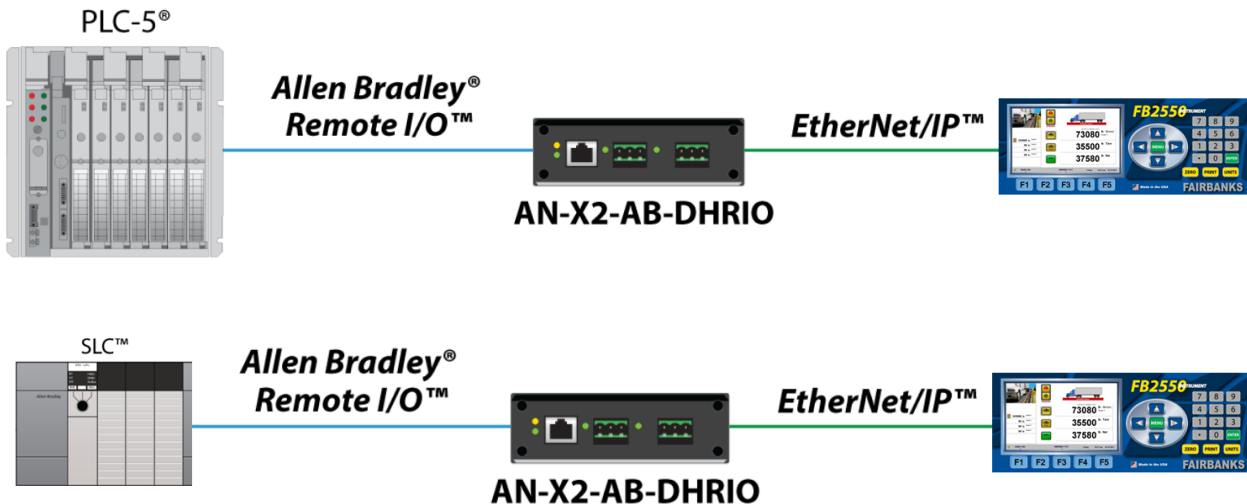
**Document Code:** Fairbanks Weighing Systems to RIO with AN-X2-AB-DHRIO\_CH\_02052019

**Date:** February 5, 2019

**Revision:** 1

Applicable products include:

- **AN-X2-AB-DHRIO**  
*Using the Drive firmware*
- **AB PLC-5 with RIO Scanner**
- **SLC with 1747-SN RIO Scanner**
- **Fairbanks Weighing System**  
*Instrument FB2550*



## How to Contact Us

**Asia Pacific**  
Regional Office  
+60.3.7941.2888  
support.ap@prosoft-technology.com

**North Asia**  
(China, Hong Kong)  
+86.21.5187.7337  
support.ap@prosoft-technology.com

**Europe/Middle East/Africa**  
Regional Office  
+33.(0)5.34.36.87.20  
support.emea@prosoft-technology.com

**Latin America**  
Regional Office  
+52.222.264.1814  
support.la@prosoft-technology.com

**North America**  
Corporate Office  
+1.661.716.5100  
support@prosoft-technology.com

## AN-X2-AB-DHRIO with drive firmware

This document describes the procedures to enable a PLC-5 or SLC to communicate with a Fairbanks FB2550 weighing instrument over Remote I/O. To utilize existing PLC-5 and SLC's Remote I/O systems, the AN-X2-AB-DHRIO will be used as a Remote I/O adapter that is controlled by the PLC-5 or SLC Remote I/O scanner.

The Fairbanks FB2550 is configured with an EtherNet/IP class 1 server that will be controlled by the AN-X2-AB-DHRIO EtherNet/IP class 1 scanner.

### 1. Configure the AN-X2-AB-DHRIO.

a. Using your favorite Internet browser, Connect to the AN-X2 webpage. Consult the [DHRIO Drive user manual](#) for instructions on setting the IP address.

b. Click on AN-X Configuration

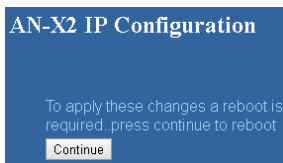


c. Assign the IP address settings for you're AN-X2.

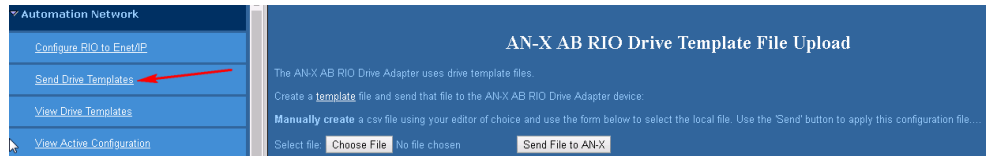
d. Select AN-X2-AB-DRV-04 for the Firmware Type.

e. Click SUBMIT.

f. Click the Continue button and wait 60 seconds for the firmware to update.



- g. Once the AN-X2 is powered up, click on the Send Drive Templates link.



### Send the EthDef file:

**\*\*The supplied EthDef\_Fairbanks\_FB2550.csv file was constructed from information obtained from the supplied EDS file for the FB2550 ([http://www.fairbanks.com/software/FB2550\\_090513.zip](http://www.fairbanks.com/software/FB2550_090513.zip)).**

**Consult the [TN171005-000 AN-X2-AB-DHRIO RIO to EIP Drives.pdf](#) technote file for information on how to construct or modify the templates.**

- h. Click the Choose File button, and browse for and select the EthDef\_Fairbanks\_FB2550.csv file.  
 i. Click the Send File to AN-X button. This will transfer the file to the AN-X2 internal storage.

### Send the RioDef file:

- j. Click the Choose File button, and browse for and select the RioDef\_Fairbanks\_FB2550.csv file.  
 k. Click the Send File to AN-X button. This will transfer the file to the AN-X2 internal storage.

### Send the MainDef file:

**\*\* Consult the [TN171005-000 AN-X2-AB-DHRIO RIO to EIP Drives.pdf](#) technote file for information on how to construct or modify the templates. The supplied Fairbanks\_FB2550.csv file configures the AN-X2 as follows:**

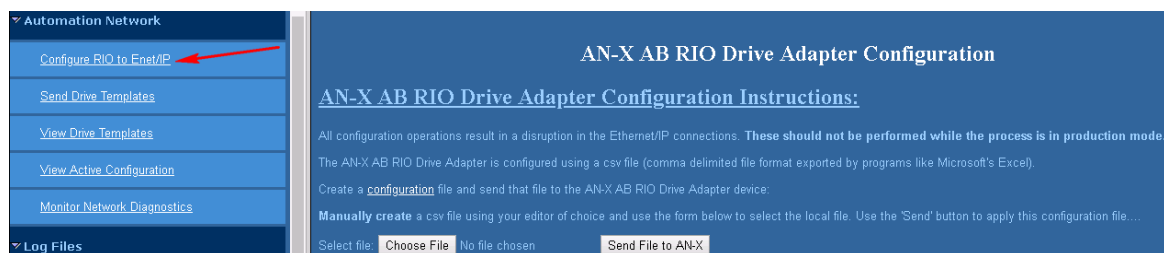
**Baud: 115k**

**Rack#: 4, full-rack**

**RPI: 100**

**IP Address of FB2550 EtherNet/IP interface: 192.168.22.202**

- l. Click on the Configure RIO to Enet/IP link  
 m. Click the Choose File button, and browse for and select the AbRio\_Main\_Fairbanks\_FB2550.csv file.  
 n. Click the Send File to AN-X



- o. Consult the FB2550 user manual for setting the IP address for the EtherNet/IP server, and set the IP address

## 2. Configure the PLC-5 or SLC.

The configuration used for this technote is configured as:

Baud: 115k

Rack#: 4, full-rack

RPI: 100

IP Address of FB2550 EtherNet/IP interface: 192.168.22.202

Verify the Main template file matches the configuration of the PLC-5.

```

;AN-X-ABRIO-DRV configuration for the Fairbanks FB2550 Instrument

Baud 115k ; 57k, 115k or 230k
Rack, 0004, 1, 4 ; Rack Number, Start Quarter, End Quarter
;btw, 3, 0 ; group 7, slot 0
;btr, 3, 1
RPI 100
Template, EthDef_Fairbanks_FB2550 ;
Template, RioDef_Fairbanks_FB2550 ;
IpAddr 192.168.22.202
Unicast
EndRack
  
```

Rack	Group	Size	Fault	Inhibit	Reset	Range
4	0	FULL	0	0	0	040-047

Once everything is configured correctly, the scale data will be located in the configured Remote I/O I and O files. In the image above, the Range defines where within the I and O files.

Example:

I40:0 is the starting input register

O40:0 is the starting output register

### Explanation of data points and values.

Inputs		Value
<b>Data</b>		
<b>File</b>	<b>Register Usage</b>	
I40:0	Status_w0	-32447 – consult bitmap table
I40:1	GrossWt_w0	25560
I40:2	GrossWt_w1	0
I40:3	NetWt_w0	25560
I40:4	NetWt_w1	0
I40:5	Setpoint_w0	1234 - Setpoint1 input value
I40:6	Setpoint_w1	
<b>Outputs</b>		
O40:0	Command_w0	1 – addressing Scale 1
O41:1	Command_w1	32 – Bit 5 set to send Setpoint1
O42:2	Out_Setpoint_w0	1234 - Setpoint1 output value
O43:3	Out_Setpoint_w1	0



Offset	0	1	2	3	4	5	6	7
0:000	2048	2048	2252	704	64	4124	0	0
0:010	0	0	0	0	0	0	0	0
0:020	0	16	0	2560	1024	0	0	20
0:030	0	0	0	0	0	-32752	32	0
0:040	1	32	1234	0	0	0	40	0
0:050	1	0	0	0	0	-32767	0	0
0:060	0	0	0	0	-32768	256	0	0
0:070	0	0	0	0	0	0	0	0
0:100	0	0	0	0	0	0	0	0
0:110	0	0	0	4	0	0	0	0
0:120	0	0	0	8	0	0	0	2

Radix: Decimal  
Columns: 8

Offset	0	1	2	3	4	5	6	7
I:000	0	0	0	0	0	0	0	0
I:010	0	0	0	0	0	0	0	0
I:020	0	0	0	0	0	0	0	0
I:030	0	0	0	0	0	0	0	0
I:040	-32447	25560	0	25560	0	1234	0	0
I:050	0	0	0	0	0	0	0	0
I:060	0	0	0	0	0	0	0	0
I:070	0	0	0	0	0	0	0	0
I:100	0	0	0	0	0	0	0	0
I:110	0	0	0	0	0	0	0	0
I:120	0	0	0	0	0	0	0	0

Radix: Decimal  
Columns: 8