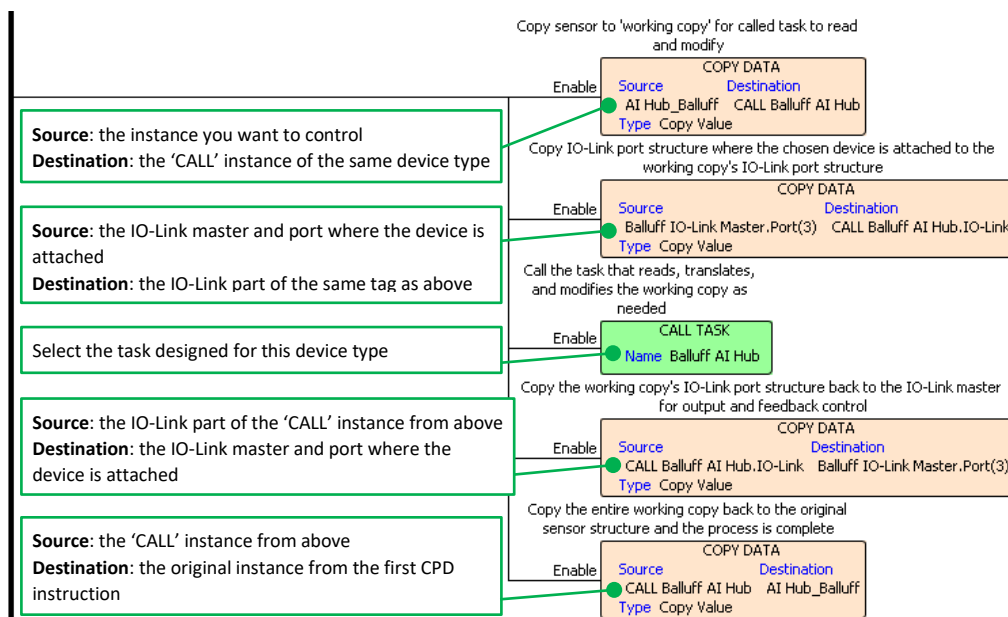


Using the Productivity Suite Integration Library with IO-Link devices

- 1) Extract the .adtkl file from this zip file
- 2) In Productivity Suite, in the Task Management window, right-click on the 'Task Library' folder and select 'Import Group'. Navigate to the folder where you extracted the .adtkl file above, select it, and click 'Import'.
- 3) You'll see a new folder in your **Task Library** labeled with the device series you downloaded.
- 4) If you don't already have the "**Balluff IO-Link Data Mapping**" task in your Run Every Scan folder, drag it there from the new Task Library folder. Click 'OK' when the Tag Conversion window appears. This will create the necessary tags for this task. Repeat this for the "**Call Device Code**" task if you don't already have it loaded in your program.
- 5) Drag the task with the device series you want to use into the 'Run When Called' folder. Click 'OK' when the Tag Conversion window appears. This will create the necessary tags for this task. In this example, we used the **Balluff AI Hub** as our called task.
- 6) To use multiple devices of the same series, duplicate one rung in the **Call Device Code** task and modify using this as a reference:



- 7) Create an EtherNet/IP device in Hardware Configuration using the EDS file for the Balluff IO-Link Master. **Note:** It is important that the EtherNet/IP device be setup to use the tags and device name that the integration code is using. In the EtherNet/IP Client Properties, select Use Structure and pick the **Balluff IO-Link Master.EIP_Device** tag. Use '**Balluff IOLM**' for the Device Name. Use the **Balluff IO-Link Master.Cyclic_Input_Data** tag for the T->O (INPUT) Data Array and the **Balluff IO-Link Master.Cyclic_Output_Data** tag for the O->T (OUTPUT) Data Array. Set the configuration value for the Port mode to "IO-Link" for each applicable port.

Pro EtherNet/IP Client Properties

Balluff IO-Link Master.EIP_Device

☒ Use Structure Balluff IO-Link Master.E

Device Name Balluff IOLM

Target IP Address 10.0.0.64 ☒ IP ☐ Tag

TCP Port Number 44818

Encapsulation Inactivity Timeout 30 secs

Swap Byte Order

From EDS: BNI EIP-508-105-R015 (Revision 1.4)

☒ Exclusive Owner (1)

Enable Msg1Enable

Application Type ☒ Exclusive Owner ☐ Input Only / Listen Only

☐ Enable Routing Slot Number 0

Connection Online Msg1ConnOnline

General Status Msg1GenStatus

Extended Status Balluff IO-Link Master.E

Status Description Msg1StatusDesc

T->O (INPUT) O->T (OUTPUT) CONFIG DATA

Target To Originator (INPUT) Data

☐ Include Run/Idle Header (When checked the message size will be increased by 4 bytes)

Delivery Option Multicast Run/Idle Status Msg1RunIdleStatus

RPI Time (msec) 250

Assembly Instance/Connection Point 100 0x64 (100 - 100)

Specified Message Size Range in bytes (min, max): (392, 392) Show EDS Parameters

Message Size from Array (bytes): 392

Datatype Integer, 8 Bit Unsigned, 1D Array

Data Array Balluff IO-Link Master.C (392 elements)

Number of Elements 392

Balluff IO-Link Master.Cyclic_Input_Data

Monitor OK Cancel Help

T->O (INPUT) O->T (OUTPUT) CONFIG DATA

Originator To Target (OUTPUT) Data

☒ Include Run/Idle Header (When checked the message size will be increased by 4 bytes)

RPI Time (msec)

Assembly Instance/Connection Point ... 0x65 (101 - 101)

Specified Message Size Range in bytes (min, max): (262, 262)

Message Size from Array (bytes): 262

Datatype Integer, 8 Bit Unsigned, 1D Array

Data Array ... (262 elements)

Number of Elements ...

T->O (INPUT) O->T (OUTPUT) CONFIG DATA

Configuration Data

☒ Enable Configuration Data

Assembly Instance/Connection Point ... 0x66 (102 - 102)

☐ Array Tag ☒ Parameter Table - (Message size is fixed by EDS)

Message Size (bytes) Group All Parameters

Name	Data Type	Bits[Start] (Range)	Offset Bit (Byte)	Value
Port 0 mode	Integer, 8 Bit Unsigned	1 (0, 1)	1 (1)	I/O
<Padding>		1	2 (1)	
Port 1 mode	Integer, 8 Bit Unsigned	1 (0, 1)	3 (1)	I/O
<Padding>		1	4 (1)	
Port 2 mode	Integer, 8 Bit Unsigned	1 (0, 1)	5 (1)	IO-Link
<Padding>		1	6 (1)	
Port 3 mode	Integer, 8 Bit Unsigned	1 (0, 1)	7 (1)	I/O
<Padding>		1	8 (1)	