

Figure 3

### 3. Rename the operator station and update RSLinx

- Change the computer name from OP4 to OP8.
- Open RSLinx and modify the configuration so that it matches the Line 1 settings.  
(See Figure 4 and Figure 5.)

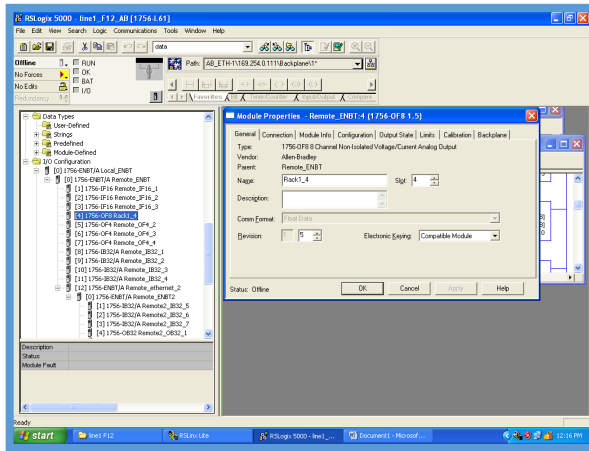


Figure 4

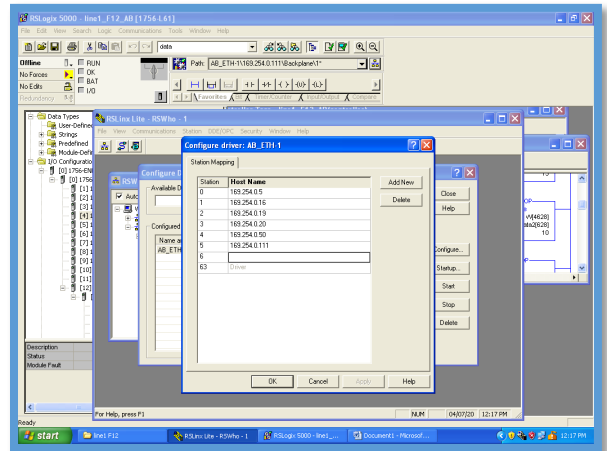


Figure 5

### 4. Download the PLC program

- Use Studio 5000 to download the correct Line 1 F12 PLC program to the controller.
- Put the PLC into Run mode.
- At this point, the PC ↔ PLC connection should be working correctly.  
(See Figure 6 and Figure 7.)

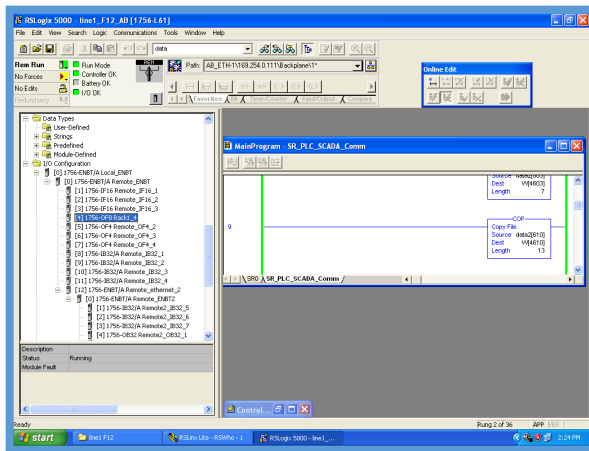


Figure 6

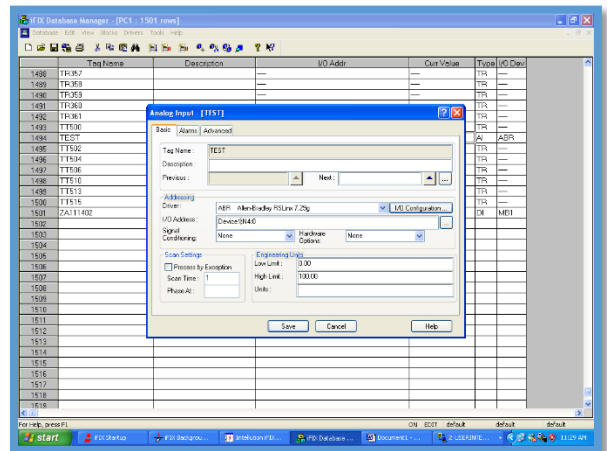


Figure 7

## 5. Check SCADA-PLC communication (PC1 SCADA)

- Go to **SCADA PC1**.
- Press **Ctrl + W** to open **Database Manager**.
- In the Database Manager window, click on a blank area and select **Analog Input**.
- Verify that the tag configuration window appears as shown in the figure.  
(See Figure 8 and Figure 9.)

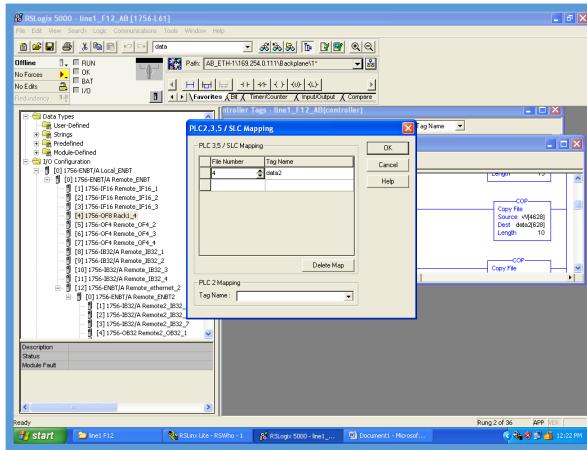


Figure 8

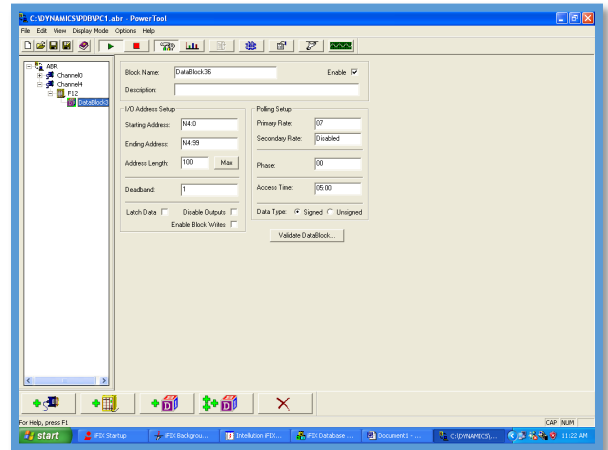


Figure 9

## 6. Verify I/O addressing and PLC mapping

- In the analog input configuration, confirm that the **I/O address** is **N4**.
- Go to the **main PC** and check that the **PLC mapping number** for this signal is **4**.
- Open the **I/O Configuration** in the main PC SCADA/Kepware project.
- Create a new **Channel – Device – Data Block** and set all parameters the same as **Channel 0** (same protocol, IP, data type, word count, etc.).  
(See Figure 10 and Figure 11.)

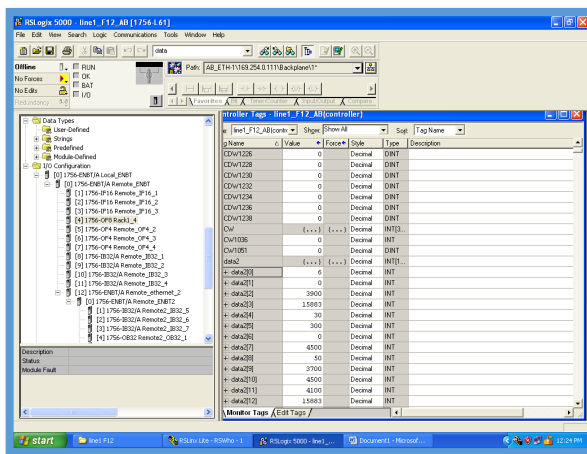


Figure 10

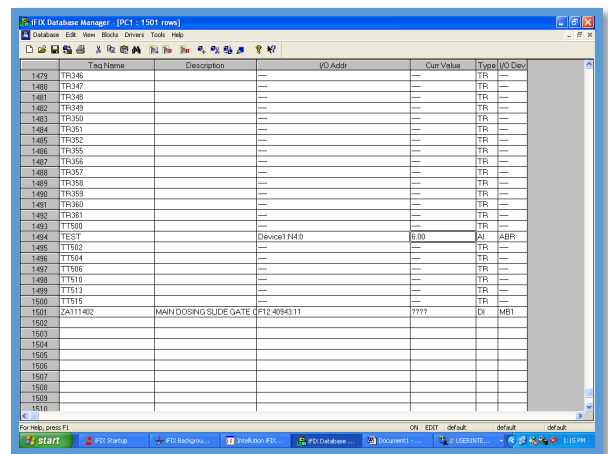


Figure 11

## 7. Confirm data consistency

- On the **main PC**, check the value of `data2[0]`. It should be **6**.
- On **PC1 SCADA**, check the same tag in Database Manager; the displayed value should also be **6**.
- If both values match, the communication between **PLC → Main PC → SCADA PC1** is confirmed to be correct.

## Step 2 – Classify F12 Tags in Excel

1. From **PC1 SCADA**, export the database to a file (e.g., CSV).
2. Open the exported file in **Excel**.
3. Use Excel to **classify and filter** all tags related to **F12** (for example, by name, description, or I/O address).  
(See Figure 12 and Figure 13.)

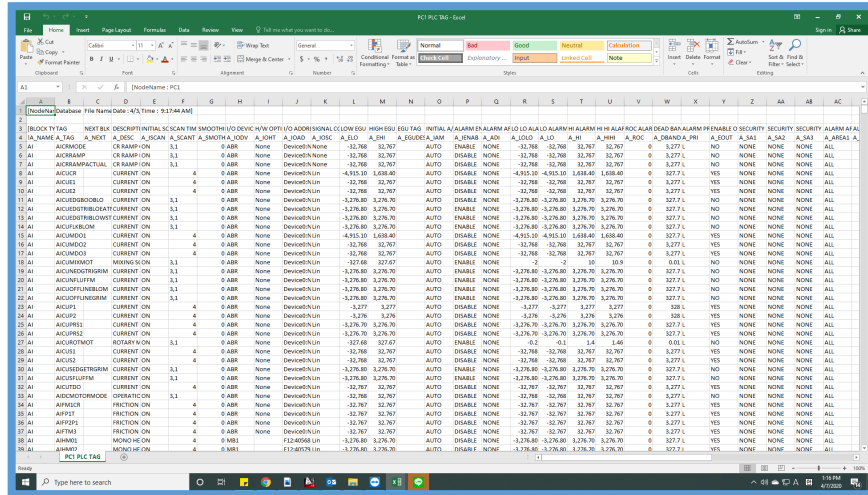


Figure 12

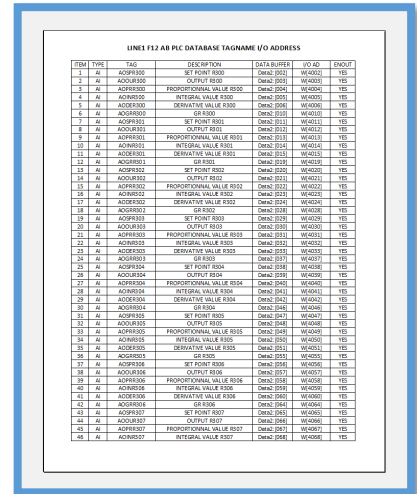


Figure 13

## Step 3 – Set MB1 IP and Timer Parameters

1. **Set MB1 IP address in I/O configuration**
  - In the **I/O Configuration** (Kepware/SCADA), set the **MB1 device IP address** to match the **ABR** setting required by the system (same as existing MB1 configuration standard used on the line).
2. **Configure timers and constants in Studio 5000**
  - In **Studio 5000**, set up the required **timers (T)** and **control words (CW)** in the appropriate control tags.
  - Timer values and constants must follow the **parameter settings used on the existing line PC** (copy the same timing and constant values as the reference line, so that the behavior is consistent).  
(See Figure 14, Figure 15, Figure 16 and Figure 17.)



Figure 14

Figure 15Figure 16Figure 17