Set Up Scale with Produmex WMS

1. Prepare setup

1.1. Install Serial Grabber

As the first step, install the Serial Grabber. The Serial Grabber is an application that tests the connection and the configuration of the scale.

You can download the application from here: FTP

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1.2. Check scale connection

Make sure the scale is connected and visible in the device manager. Only continue if the scale is visible.

2. Configure scale

The configuration steps might differ based on the used device. In this documentation we describe the configuration steps of a Mettler Toledo PS60 scale.

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2.1. Verify the settings of the scale

Check the following setup parameters of the scale:

- Baudrate
- Number of Databits per ASCII Characters
- Parity Bit

- Number of Stopbits
- Protocol

Mettler Toledo PS60 example

In order to check the scale settings, follow these steps:

- 1. Press the 'Units' key and hold it until the "SETuP?" message is displayed. (This takes approximately 10 seconds.)
- 2. Press the Units key repeatedly until a required parameter is shown on the display. The required parameters are shown with the following codes:
 - Baudrate: BAud
 - Number of Databits per ASCII Characters: ASCii
 - Parity Bit: PAr
 - Number of Stopbits: StoP
 - Protocol: Proto
- 3. Press the Zero key to read the parameter value.
- 4. Write down the parameter vale.
- 5. Repeat steps 2. 3. and 4. until you have checked every required parameter.

Parameter	Scale display	Example Value
Baudrate	BAud	9600
Number of Databits per ASCII Characters	ASCii	7
Parity Bit	PAr	Even
Number of Stopbits	StoP	1
Protocol	Proto	toLEdo

2.2. Test connection

Test the scale connection with the help of the SerialGrabber application.

Run the application and fill in the values:

1. Port: The port number. You can check the port number on the Device Manager.

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- 2. Baudrate: The Baudrate value.
- 3. Databits: The number of Databits per ASCII characters.
- 4. Parity: The Parity value.
- 5. Stopbits: The number of Stopbits.

Add any scale command to the field next to the 'Send' button (6) then press the button. You can look up the scale command in the documentation of the scale. Make sure that you use a valid command used by the given scale. The response of the scale is displayed on the field below the command in the following format:

7. TX: entered command

- 8. time
- 9. returned command in HEX

10. returned command in ASCII

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Example:

In the example we used the get weight command for the Mettler Toledo PS60 scale which is 'W'. In return, the Serial Grabber displays the return weight command displayed in hexadecimal and in ASCII characters.

Serial Grabber does not support special characters except for the line feed (n) and carriage return (r) characters.

If you have to include another special character(s) in the entered command, you can use Docklight instead of SerialGrabber. You can download the evaluation version of Docklight from here: https://docklight.de/downloads/

2.3. Configure the scale

Create a scale in the Organizational Structure. For more information about the scale settings please see: Scale settings.

First define the scale connection. Make sure that you use the correct scale parameters when you define the communication parameters. In some cases it is possible that the connection can be established with incorrect parameters but the scale returns the result in incorrect characters if the connection is not set properly.

Example: Scale definition for the Mettler Toledo PS60

The following parameters are required in order to define the scale connection:

- Port number: We can check the port number on Computer Management. In this example the port number is COM3.
- Scale parameters:
 - $\,\circ\,$ Baudrate: In this example the Baudrate value is 9600.
 - $\,\circ\,$ Databits: In this example the Databits value is 7.
 - $\,\circ\,$ Parity: In this example the Parity value is Even (E).
 - $\,\circ\,$ Stopbits: In this example the Stopbits value is 1.

If the scale is connected through direct connection, the scale definition is: com://COM3?9600,7,E,1

If the scale is connected through the ScaleComm service, the scale definition is: com://COM3?9600,7,E,1

Then set up the scale commands based on the manual of the given scale. The weight return command is used to return the captured weight into the Produmex application. The weight return command must be defined as a regular expression.

You can use the RegExTester tool to test your regular expression for the weight return command. Download the tool from here: FTP

Example: Weight return command for the Mettler Toledo PS60

On the SerialGrabber we can see that the scale returns the following HEX command: **02** 30 30 31 2E 39 30 **0D**

The HEX command starts and ends with a control character, in this example the start control character is '02' and the end control character is '0D'.

HEX code	Regexp code
02	\x02
0d	\x0d

The string between the control characters is the weight. The weight in the expression should always be surrounded by **(?'weight')**. Because the weight string can contain any character and has no defined length, we also add the '.' (match any character operator) and the '+' (match one or more operator) to the expression.

Therefore the regular expression for the weight return command is: \x02(?'weight'.+)\x0d

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2.3.1. Legacy configuration for the Component weighing flow

Set up the scale on the Scale definition user table:

- Define the code and the name.
- Define the scale provider type.
- Define scale settings

	Code	Name	Linked object t	Linked doc	Linked line n	Scale provider type	Scale settings	Max. weight	Nr. of decimals	Instance ID
	Scale01	Scale01				AnD_HV_Scale	com://COM3?9600,7,E,1		2	
1	Scale02	Scale02				AnD_HV_Scale	com://COM4?9600,7,E,1		2	

Link a scale to a thin client on the Defines the weighing scales available to a specific thin-client user table.

Please note: Only one scale can be hooked up to a thin client.

Defines the weighing scales available to a specific thin-client										
#	Code	Thin Client code	Scale Def. code	7						
1	01	TC_PACK_01	Scale01	•						
2	02	TC_PACK_02	Scale02	•						
3				•						
				-						
		1	1							
	OK Cancel									

2.4. Enable ports in remote desktop connection

Enable the ports, otherwise the scale will not communicate through the RDP session.

Open the Remote Desktop and click on 'Show options'. Go to the Local Resources tab and click on the 'More...' button under *Local devices and resources*. On the opening window check the 'Ports' checkbox.



