COMet

Quick Guided Tour

DOC-PEM-COMet6-US-02/08/00

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About this Manual

Documents Supplied

Complete documentation is available to help you get the most from COMet.

By means of an example, the *Quick Guided Tour* aims to familiarize you quickly with the software, giving you the basic keys for getting started. This documentation has been designed as a compliment to the online help.

Online Help is accessible from the application, and outlines all application procedures.

Typographical Conventions

This manual distinguishes between different types of information by using the following conventions:

- terms taken from the interface itself, such as commands, appear in **bold**;
- keys appear in small caps, as in the following example: ”Press the SHIFT key”;
- numbered lists mean there is a procedure to be carried out;
- when the conjunction ”or” appears next to a paragraph it means there is the choice of another procedure for carrying out a given task ;
- When a menu command contains submenus, the menu name followed by the command to select appears in bold. Thus, ”Choose **File Open**” means choose the **File** menu, then the **Open** command.

Following this symbol you will find hints for optimizing certain tasks, speeding up the execution of commands, etc.

Quick Guided Tour

Introduction

The guided tour provides a quick introduction to get you off to a good start with the basic functions of **COMet**. By means of a practical example, you will learn how to create a new hardware environment and configure source devices using different communication protocols.

This example features a weighing machine, a bar code reader and keyboard data entry as means of gathering the information needed to ship packages.

The information gathered is inserted in the label below :

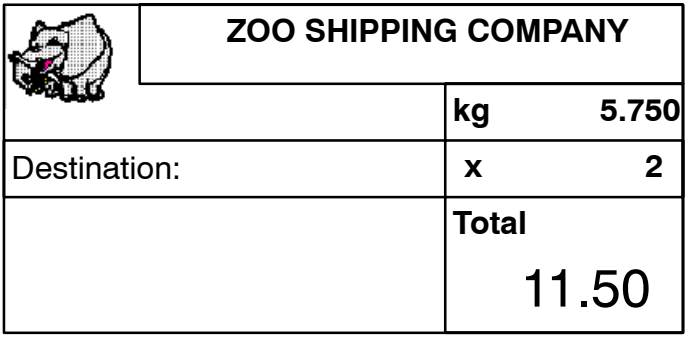


Figure 1 Presentation of the Example Label

Presentation of the Zoo Shipping Company

The ZOO Shipping Company's dispatch service has developed a package shipping system using **COMet**. Each package must be accompanied by a delivery slip.

Outgoing packages are routinely weighed and a light beam reads the bar codes on each package. An operator responsible for supervising the process enters the price per kilo.

Weighing the package makes it possible to calculate its shipping price, and reading the bar code indicates its destination.

The information gathered is inserted into the shipping label (see Page 2 - 3). This enables the company to keep a precise reference number for each outgoing package.

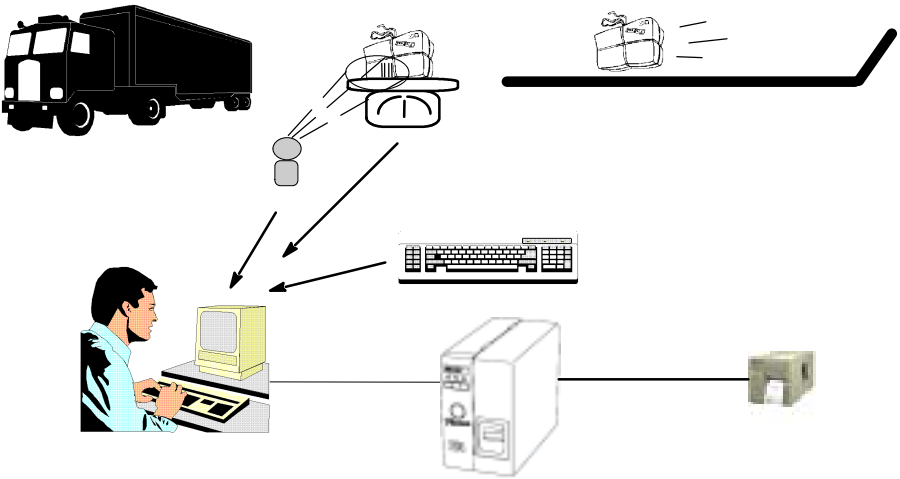


Figure 2 Presentation of the Example Label

Note

This is just an example, of course. In real life, the price of shipping a package, which depends on its destination, would be calculated by a database, not an operator.

Setting Up the Environment

This sequence describes the shipping department's hardware configuration and gives the procedure for creating the work environment.

▶ Hardware Devices

- A PC
- A printer connected to the PC's COM 1 port
- A bar code reader connected to the PC's COM 2 port
- A weighing machine connected to the PC's COM 3 port

Note

The PC, which originally had only two serial ports, has been fitted with a multiport card. Four serial ports have been added to the first two, making a total of six. Using the **Options** dialog box, you will have to disable ports 7 and 10, which will not be used in this example.

▶ Setting Up the Work Environment

Using the **COMet** interface, you will now create the device group by adding the bar code reader and the weighing machine to the above ports.

1 Click on  or press F2.

2 Select **Default** as hardware environment.

The interface appears as shown below :

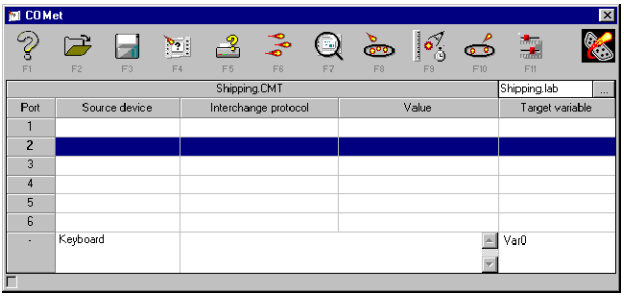


Figure 3 The Main COMet Window

3 Go to Port 2, then click on  or press F8.

The **Selection** dialog box appears.

4 Select the HBCR8000 protocol used by the bar code reader, then click on OK.

5 Repeat this procedure for Port 3 and select the TEC-SL47 protocol used by the weighing machine.

The table now looks like the example shown below :

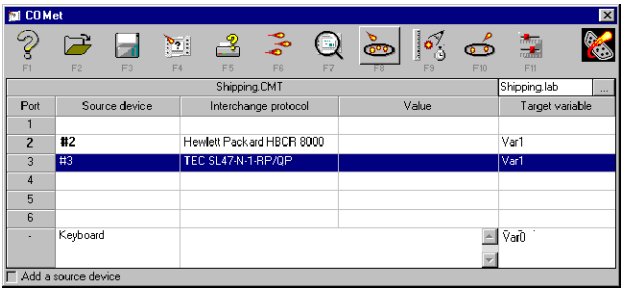


Figure 4 Selecting Protocols

▶ Selecting the Target Document

1 Click on  or press F4.

2 Select the **Shipping** label from the **COMet Samples** folder.

This label contains several **Var** fields:

- **Destination** : the data will be acquired when the bar code on the package is read; ;
- **kg** : the value will be acquired when the package is weighed; ;
- **CodeOp** : the value is the price per kilo, entered by the operator; ;
- **Total** : the result of the formula (kg x CodeOp), which will be the dispatch price of the package.

▶ Device Settings

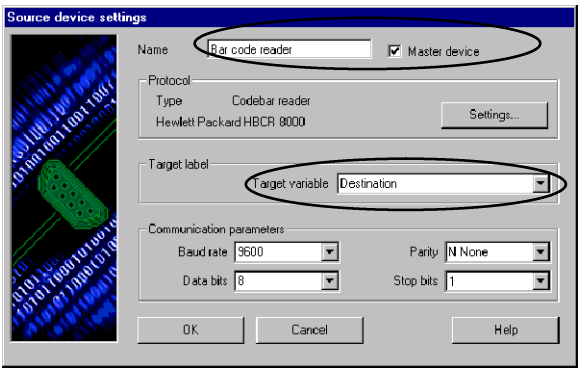
When you configure device settings, you must assign an ” uncoded ” name, (unlimited length) to the device, designate a **master** device and select the target field in which the data acquired is to be inserted.

Selecting Settings for the Bar code Reader :

1 Go to port 2.

2 Click on  or press F9.

The **Source device settings** dialog box appears :



Complete the boxes indicated, then click on OK.

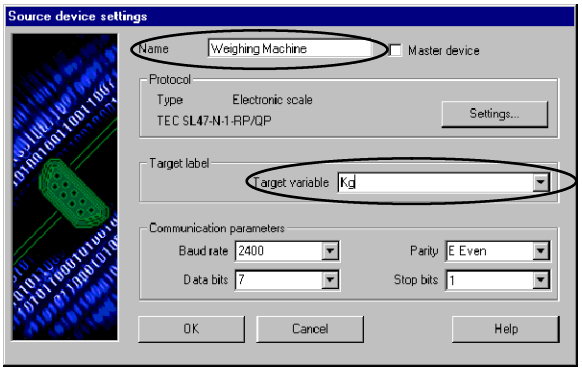
Figure 5 Configuring the Bar code Reader

Selecting Settings for the Weighing Machine :

1 Go to port 3

2 Click on  or press F9.

The **Source device settings** dialog box appears :



Complete the boxes as shown, then click on OK.

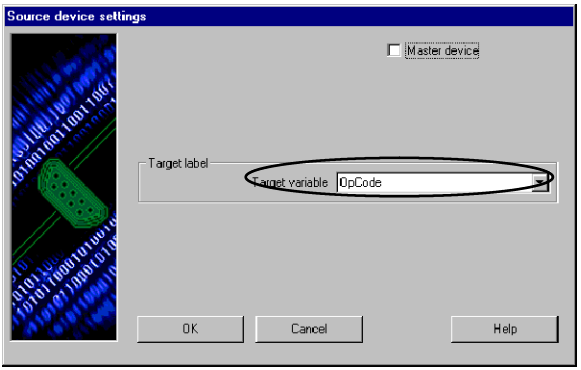
Figure 6 Configuring the Weighing Machine

Selecting Keyboard Settings

1 Go to the row in the table corresponding to the keyboard.

2 Click on  or press F9.

The **Source device settings** dialog box appears. Since the keyboard is a special device, the dialog box contains only one box for selecting the target field.



Complete the box as shown, then click on OK.

Figure 7 Configuring the Keyboard

Once the information is entered, the main **COMet** window looks like this :

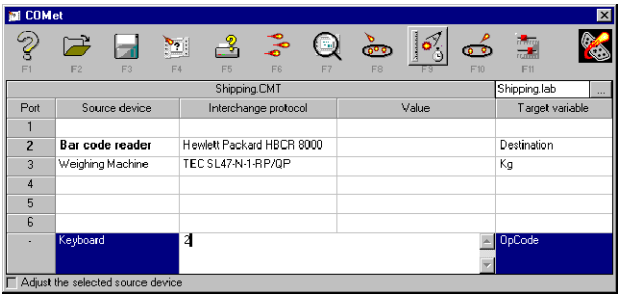


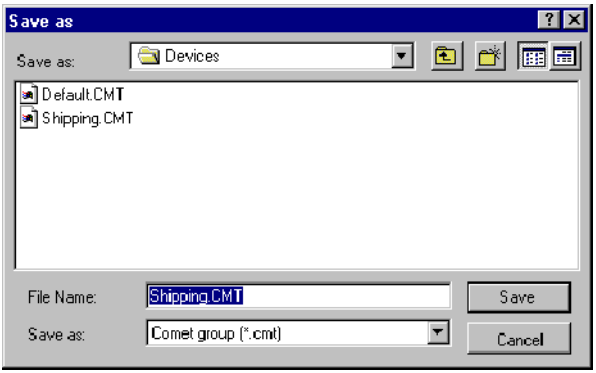
Figure 8 Displaying the Configured Devices

▶ Saving the Environment

Now you have created your environment, you will save it so that it can be used later.

1 Click on  or press F3.

The **Save as** dialog box appears :



2 Enter SHIPPING.CMT as the environment name, then click on OK.

Data Acquisition

To launch data acquisition:

1 Click on  or press F6.

The **Transfer** dialog box appears.

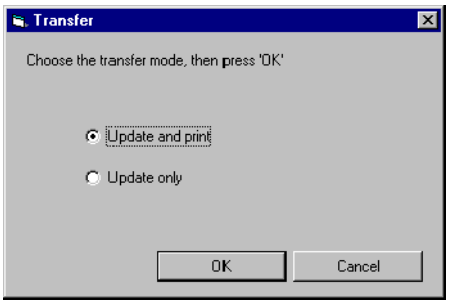


Figure 9 The **Transfer dialog box**

2 Check the **Update only** box: data will be sent to the labeling software and inserted into the label **Var** fields.
or
Check the **Update and print** box if you wish to both update the **Var** fields and print in real time at the same time.

Values are displayed one by one in the table.

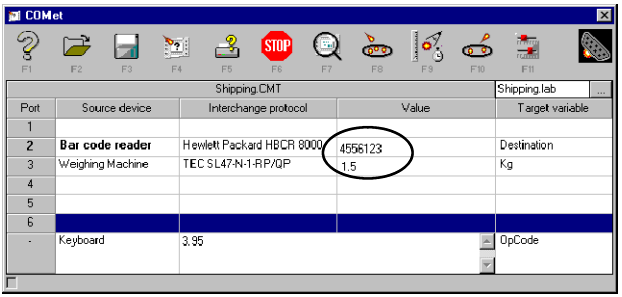


Figure 10 Displaying Values during Transfer

To show that the transfer process is taking place, the button becomes STOP.

Obtaining a Preview

- To better monitor the process, request a label preview by click on or by pressing F7.

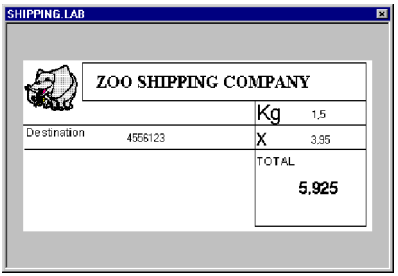


Figure 11 Label Preview

Creating a New Protocol

It is entirely possible that the protocol used by your device is unavailable in **COMet**. If so, you must define it using the technical information sheet that came with your device.

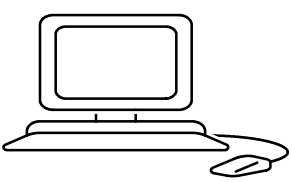
Let us suppose that the ZOO Shipping Company has just purchased a new bar code reader, the protocol of which is not recognized by **COMet**.

Excerpt from the manufacturer's information:

```
Quazar Bar Code Reader
Protocol : TX-22
Type : touch reader
Communication parameter :
Speed : 2,400 baud
Data bits : 8
Parity : none
Stop bit : 1
Initialization :
```

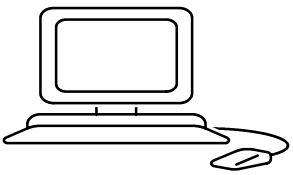
	Sequence
Check characters on	09 01
Check characters off	09 00

Configuration



n = 00 or 01

Reading



nnn =
code data +
check character

Selecting Settings for the Bar code Reader

1 Click on  or press F8.

The protocol **Selection** dialog box appears.

2 Click on **New**.

3 Click on  or press F9.

The **Source device settings** dialog box appears.

4 Using the manufacturer's information, complete the differents boxes as shown below :

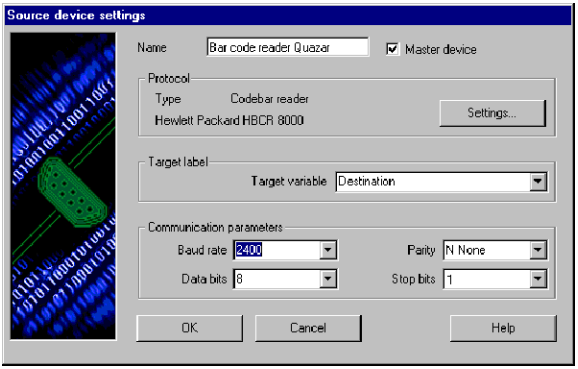


Figure 12 Configuring a source device

5 Once the dialog box has been completed, click on **Settings...**

The **Protocol** dialog box appears.

6 Check the **Proceed with this step** box, then complete the text boxes by referring to the manufacturer's information. Here we are looking to obtain the bar code's check character.

▶ Initialization Step

To retrieve this check character, and in accordance with the device specifications, you must send the command " 0901 ", or ^I^A (see note below).

We will then delete this data check character as in our case, the sole purpose of initialization is to make sure the reader is working correctly.

Note

The following special characters cannot be directly entered into the text box:
- ASCII check characters (ASCII 1 to 31)
- quotation marks (ASCII 34)
- commas (ASCII 44)
- semicolons (ASCII 59)
- equal signs (ASCII 61)
- circumflex accents (ASCII 94)
- spaces (ASCII 32)
- extended ASCII characters (ASCII 128 onwards)
- backslashes (ASCII 124)

To enter these characters, use one of the following notations :

1 ^#, # is a capital letter from A to Z and replaces the ASCII characters from 1 to 26.
Example: ^F for the 6 byte.

2 ^###,### is a decimal number above 0 (length is fixed at 3 digits).
Example: ^034 for the double quotation marks, or ^094 for the circumflex accent.

- To enter this command, enter " ^I^A " (in **Windows$_{TM}$** enter a space after the circumflex accent) :
  ^, space, I, ^, space, A.

Still following the manufacturer's specifications, the reader should send back an " OK ". If there is nothing after 500 ms, the communication is deemed to have failed, and the user must then decide what to do.

▶ Wait Stage

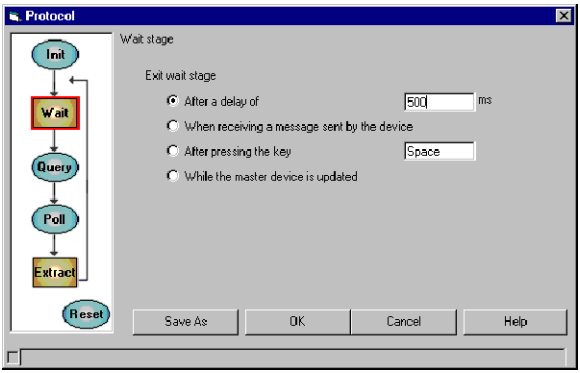


Figure 13 Wait Stage

- Check the **When receiving a message sent by the device** box, since the data is transmitted as soon as the reader's trigger is activated.

▶ Data Acquisition

This step allows you to check whether the data received meets user expectations.

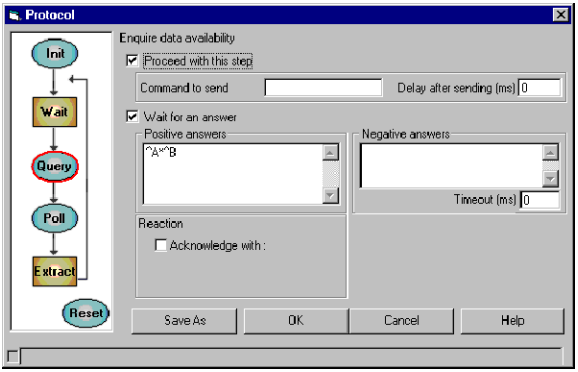


Figure 14 Data Acquisition

In our case, we are expecting a variable message.

According to the manufacturer's specifications, and whatever the nature of the bar code, the message takes the form " 01 n n n n... check 02 ". It is contained within the codes " 01 " and " 02 ", contains a variable number of characters and may contain a check code at the end.

- Enter ” ^A*^B ”.

  ^A : message start character,

  * : joker replacing a given number of characters,

  ^B : message stop character.

▶ Data Extraction

In this step, we will define the structure and nature of the message, and specify which part of the message we want to retrieve.

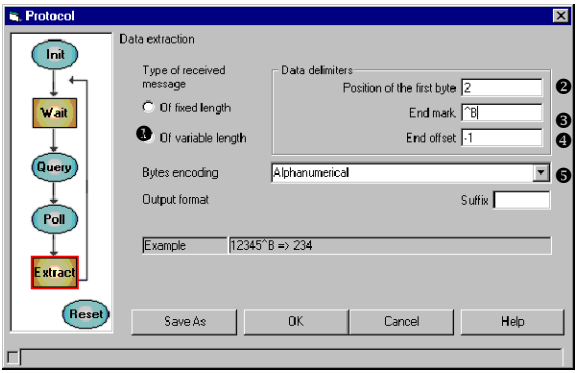


Figure 15 Data Extraction

Key:

❶ We know that the message is of **variable length**.

❷ The first data byte is placed in second position, after the message start byte.

❸ The stop character is ^B.

❹ We want an offset of -1 byte to exclude the check character (it is not necessary to keep this information, since the labeling program recalculates the check character).

❺ Coding is **Alphanumerical** ; bytes received will be transmitted without being converted.

Using the **Example** box, check that the message features the correct parameters.

▶ Saving the New Protocol

Now that the protocol is configured, you need to save it.

1 Click on **Save as**.

The **Saving the protocol** dialog box appears. :

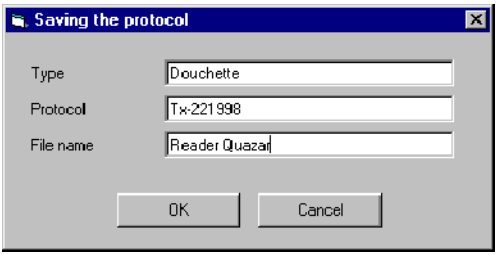


Figure 16 Saving the Protocol

The box features three text entry boxes allowing you to input precise reference information for any new protocol.

2 Complete all boxes with the values mentioned above.

Try to include the model revision number in the protocol box as manufacturers may change the message protocols from one production run to the next.
For example: TX-22 1998

Note

For the sake of simplicity, in this exercise we have not included a data availability enquiry (Query) or a reset sequence (Reset).