Applications: Reading and processing of barcodes with SIMATIC S7-CPU and serial CP 340

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QUESTION:
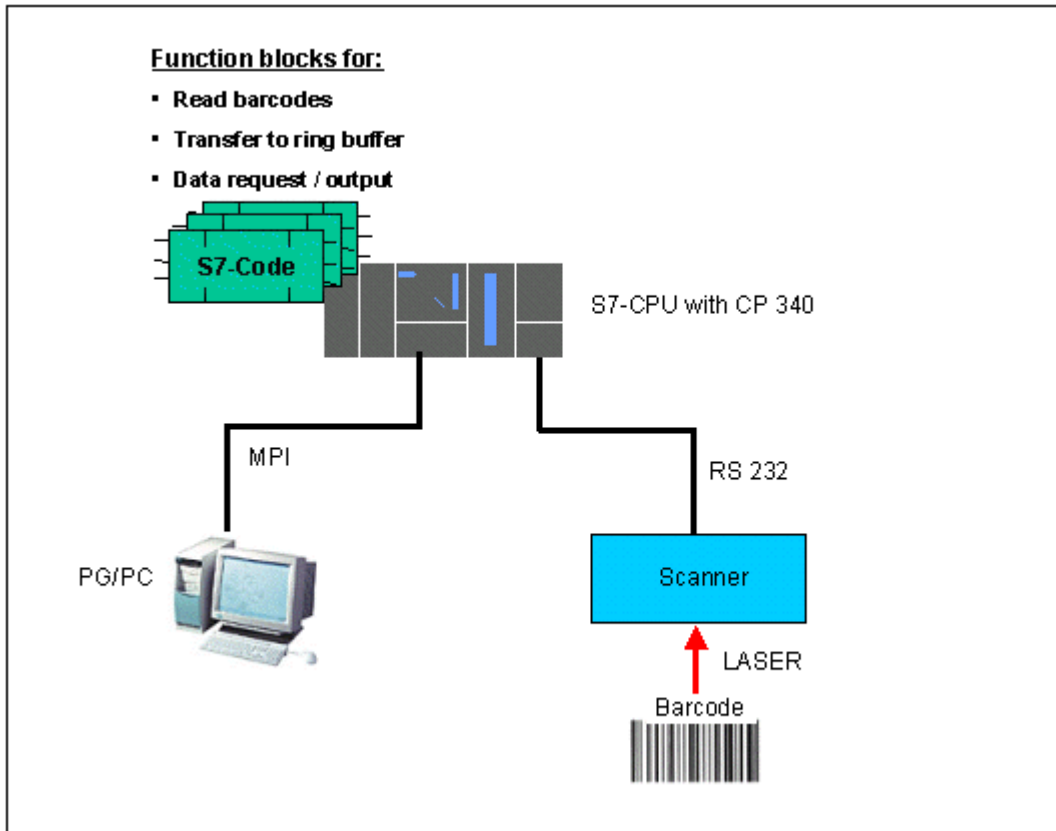How do I read and process barcodes with an S7-CPU and the CP 340 serial interface?

ANSWER:
We often have the problem in automation technology that barcodes have to be read into a logic control using very different types of scanner, frequently made by different manufacturers. As the reading process is so fast, data has to be buffered in the control system and output again on request in chronological order. If an error is made, the user must be protected from data loss.

The ideal solution to this problem is to use a combination of **SIMATIC products** and **barcode readers** by various manufacturers. The set-up is completed by **application software** developed specially for this purpose.

The application is based on an infrastructure that works independently of the type of scanner used or the manufacturer, and that can read barcodes of different character lengths. Using the SIMATIC CP 340 (PtP link) barcodes are transferred via RS232 to the S7-CPU**.**

The following diagram illustrates the infrastructure of the application.

The process works as follows:
The barcodes are read into the S7-CPU. To avoid losing any data, it is temporarily stored in a ring buffer (FiFo) in the CPU. When the user requests data, it is transferred on the FiFo principle from the ring buffer to a defined user interfacefor further use.

For further details please refer to product information.

Product information for downloading:
The following download includes full **product information** (dated 10/2001) on the application "Reading and processing of barcodes with SIMATIC S7-CPU and CP 340 serial interface".

pi_barcode_cp340_v10e.pdf（123 KB）

Charged software (payment by SIMATIC Card):
The download includes the documentation and the STEP 7 code. The project was set up with STEP 7 V5.1.

barcode_cp340_v10e.exe (1.9 MB, 150 units)

Copy the "barcode_cp340_v10e.exe" file to a separate directory and then start the file with a double click. You will receive the program documentation as a pdf file and the project as a zip file which you must unzip with WinZip. You can then open and edit the unzipped project with **SIMATIC Manager**.

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