Cargoscan

Data Capturing Software

CXS310

Operating Guide

Software version: CXS310 v1.0.5

CHANGE LOG

| Date	Revision	Notes
30-APR-2005	1	* First release
07-SEP-2005	2	* Changed registration dialogue with window with green box * Changed error dialogue window with window with red box
27-SEP-2005	3	- Removed references to web server + Added scanning of barcode to perform command

<u>Contents</u>

1   Introduction

CXS310 software (codename **CSX**) is a software that runs on a Cargoscan's dynamic dimensioning measurement instrument **CNS810**. The software is used to capture weight, dimensions and bar codes of a package, store the legally relevant measurement results to an external alibi memory and forward these results to the customer's host system.

The **CNS810** measuring instrument has a VGA display and an optional external 2-line display, the CS2200. Both are used to show measurement results. The VGA display can be used to configure the CSX software.
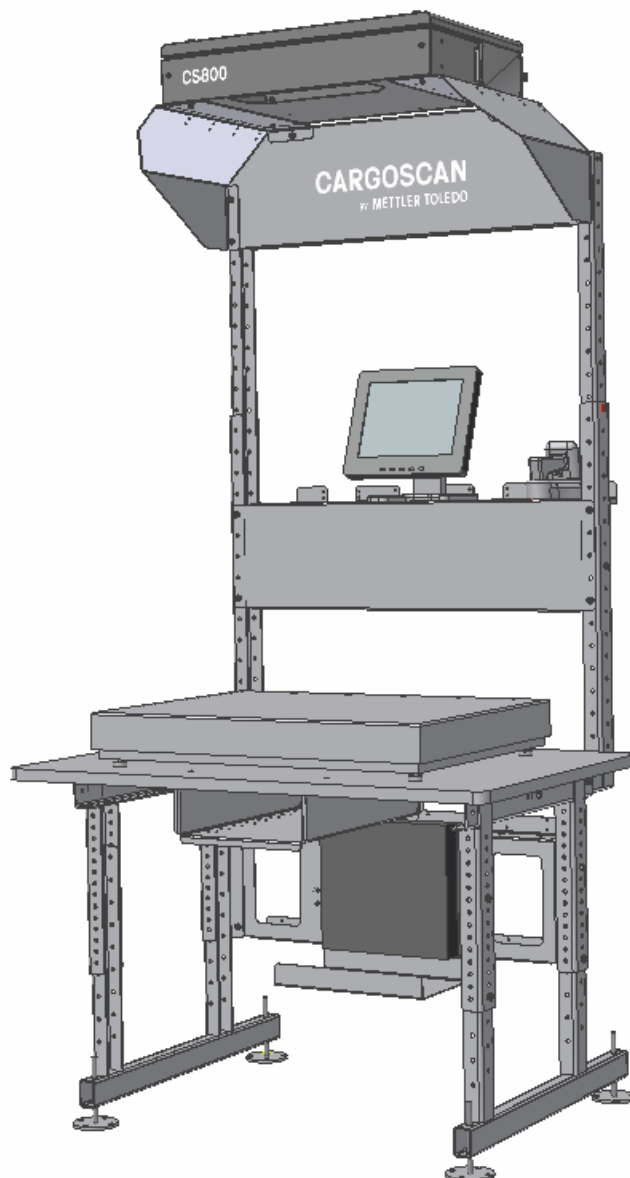
The measuring sequence is started whenever the barcode reader sees a barcode that is validated by the CXS310 software. Then the scale and dimensions are captured.

2 User Interface

2.1 VGA display

The VGA display is a normal full size graphical display. The main screen includes four parts:
Statistics, List of packages, Command buttons and Current (package being registered):
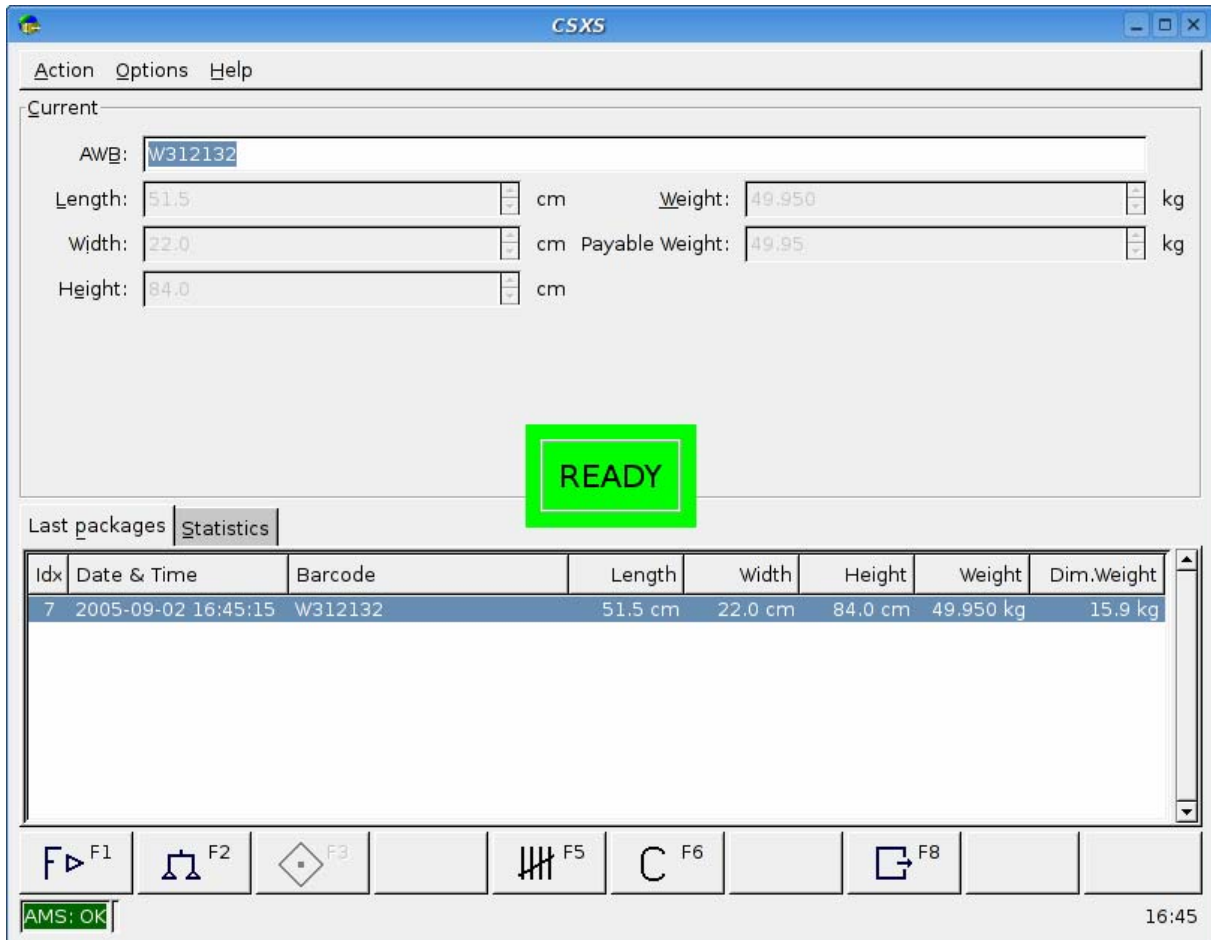
Figure 1 - CSX User Interface

<u>**Current**</u> shows the package being registered now.

<u>**Statistics**</u> section shows statistical counters and values.

<u>**List of packages**</u> section shows the last 50 measured packages.

<u>**Command buttons**</u> section is used to activate several functions either by clicking on the button or by pressing the corresponding F-key. A selection of the command buttons are also available through scanning special barcodes.

Current

Current section shows the package being registered.

Value	Description
AWB:	The package shipment number or license plate
Length:	Measured or manually entered length
Width.	Measured or manually entered width
Height:	Measured or manually entered height
Weight:	Measured or manually entered weight
Payable weight	The maximum value of the weight and the volume divided with a configurable chargeable weight factor.

Possible error and warning messages are shown under the *Payable weight* field.

Figure 2 – Current package values

Statistics

Statistics shows the summed number of packages measured:

Value	Description
# of packages:	Total number of packages measured since the last reset.
Since:	From when the statistics are counted
Next reset:	Next scheduled reset or empty if no scheduled reset
# of packages per hour:	Calculated number of packages per hour
# of packages per day:	Calculated number of packages per day

Figure 3 – Statistics

Resetting statistical counters

Press **F1** and then **F5** to reset statistical counters.

CSX software can be configured to reset statistical counters automatically after a given number of minutes of inactivity (no packages or bar codes detected).

List of packages

List of packages shows the last 50measurement results.

Idx	Date & Time	Barcode	Length	Width	Height	Weight	Dim.Weight
0	2005-04-08 10:00:27	W9928873	78.5 cm	39.5 cm	80.0 cm	42.020 kg	41.3 kg
1	2005-04-08 10:01:13	W6652445443	34.0 cm	20.0 cm	77.0 cm	45.590 kg	8.7 kg
3	2005-04-08 10:02:45	W767687687	95.0 cm	51.5 cm	91.8 cm	18.270 kg	74.9 kg
4	2005-04-08 10:03:12	1Z9962557809099	72.0 cm	64.0 cm	14.5 cm	99.990 kg	11.1 kg
5	2005-04-08 10:04:02	W9982772	24.5 cm	2.0 cm	14.2 cm	30.370 kg	0.1 kg

Figure 4 - List of packages

The list contains the following information:

- One or more bar codes found on this package

- Package dimensions (length x width x height) or an error code if failed to measure

- Weight

- Volumetric weight

Command buttons

Command buttons are buttons on the bottom of the screen used to control the operation and run additional functions.

First row of command buttons:

Icon	Shortcut	Description
	F1	Opens the second row of command buttons
	F2	Start manual measurements
	F3	Cancel ongoing measurements
	F4	Not used
	F5	Show statistics
	F6	Reset information in Current section
	F7	Not used
	F8	Restarts the User Interface application

Second row of command buttons:

Icon	Shortcut	Description
⊠	F1	Opens the messages window
	F2	Not used
→0← ▽	F3	Zero scale and CND810
X	F4	Closes the second row of command buttons
⌀	F5	Resets statistical counters
⌶	F6	Starts CSX configuration
Info	F7	Shows information about CXS310
	F8	Not used

Status bar

Status bar shows additional information about the status of the system.

AMS: OK HOST: ONLINE   10 00
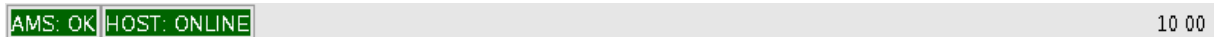
First section indicate the status of CSX subsystems – AMS and CSM.

The second section indicates the host interface status – HOST DISABLED, HOST OFFLINE or HOST ONLINE.

The last section displays the current time.

3   Working with the software

CSX follows the same registration sequence for all types of packages.

I.   Measurement starts whenever a valid AWB (package ID) is entered. There are alternatives:

     a.   The operator identifies the AWB of the package with the barcode reader.

     b.   If the AWB of the package cannot be read with the barcode reader, the operator must enter the AWB manually.

        While entering the AWB the field turns to red to indicate that the entered information so far is not correct. When the proper number of digitis and checksum is entered the fields turn to white to indicate that the reading is correct. Then press the Enter key to start the measurements.

II.   Measurement is now started, by triggering the scale and the CS800.

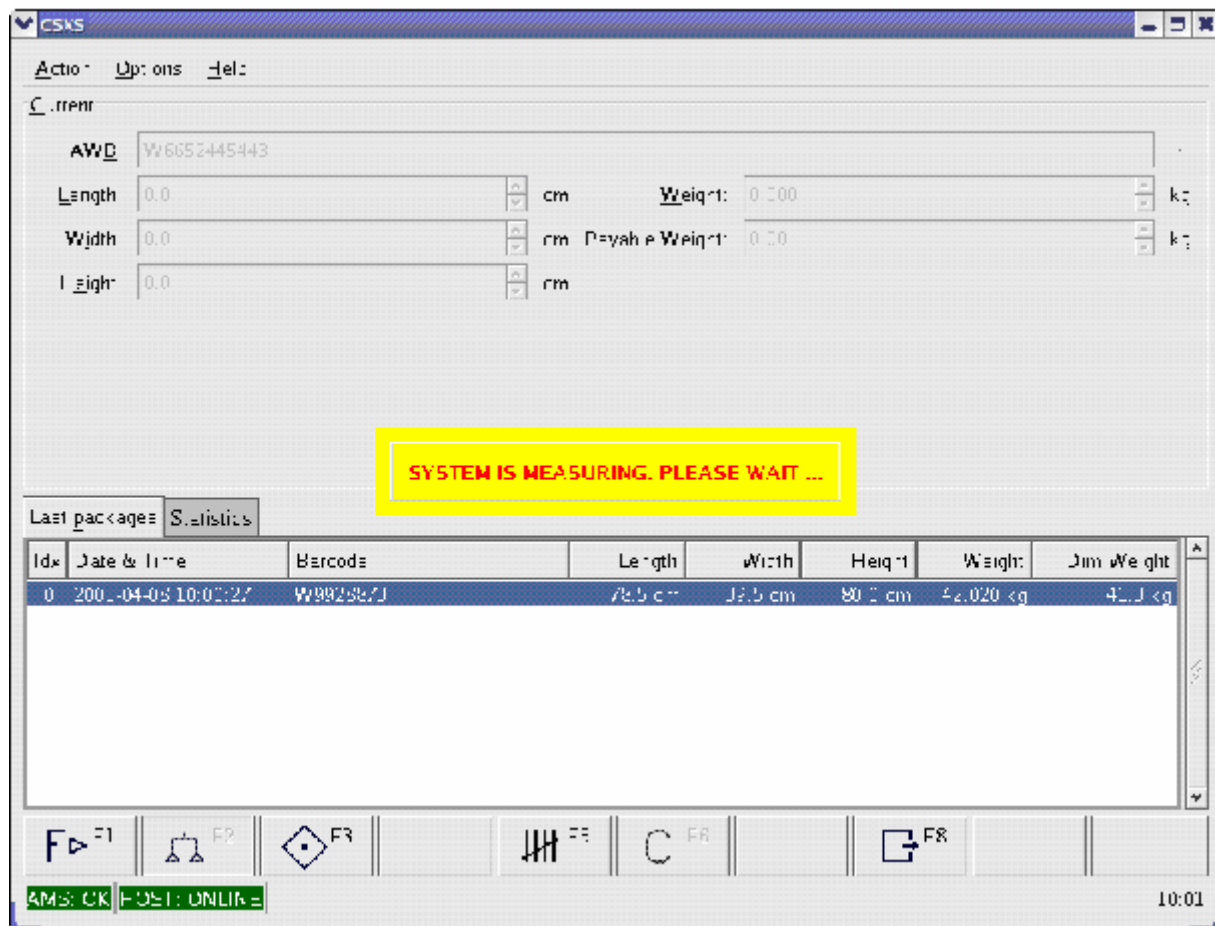**Figure 5 - CSX measuring**

III   Measurements are received. There are alternatives:

     a.   If all measurements are Ok, all fields are greyed and will stay on the screen until the next AWB is read. However, the operator will see that the measurements have popped up in the Last 50 packages field.

     b.   If any measurement is wrong, the reason is shown underneath payable weight field.
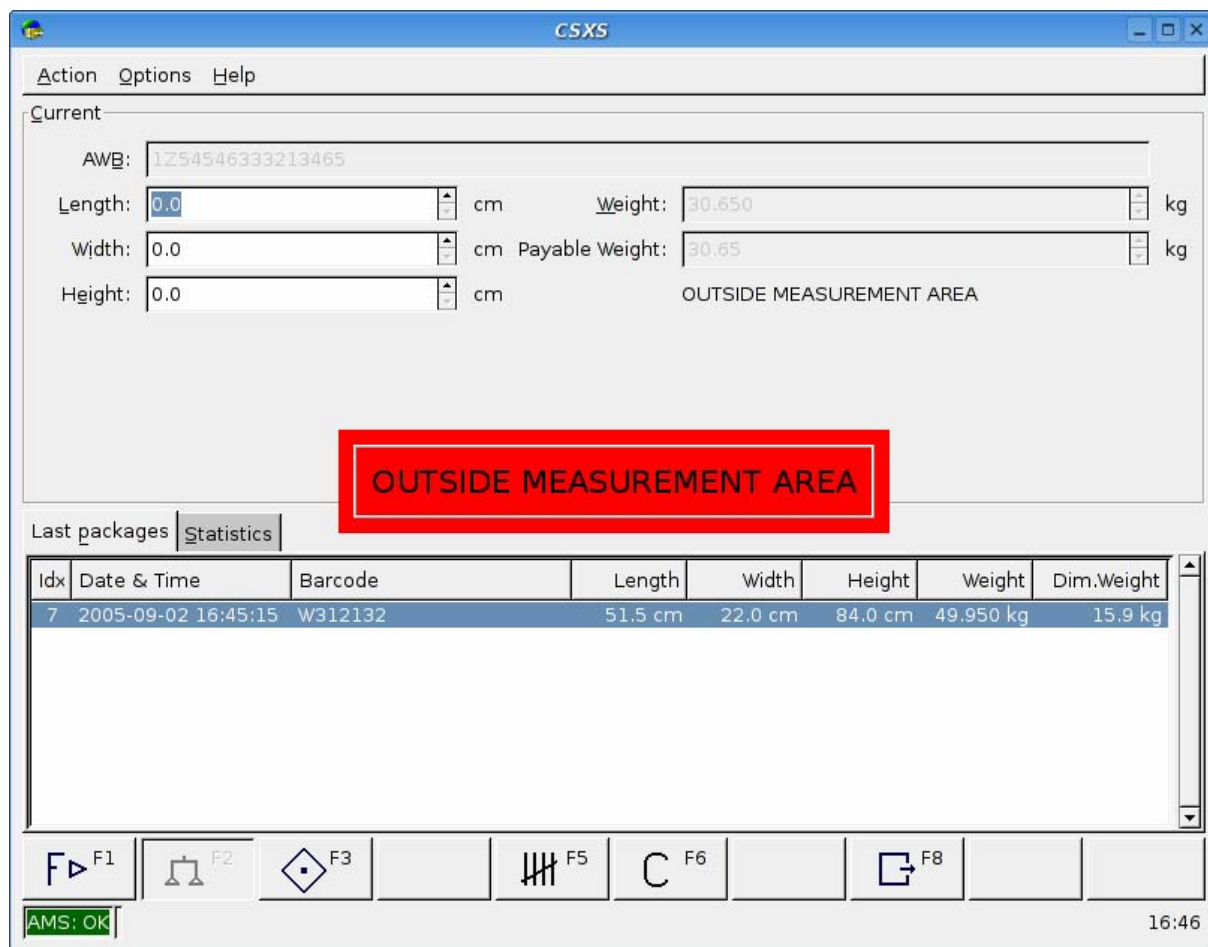
Figure 6 – Measurement error

Then the operator can select between either:

1.   The operator can manually enter the values in the fields with 0.0, thus the dimensions or weight has to be manually obtained, which can be time consuming. On the other hand it could be that the item is not measurable, which means that the values must be manually keyed in.

    Manually entered values must be confirmed.

Figure 7 – Confirm storage

2.   The operator can cancel out the existing measurements with .

3.   Re-measure the package with

Resetting statistical counters

To reset statistical counters press ⌐▷ and then Ø ;

Messages window

The Messages window shows the content of several log files in the system. They are used to troubleshoot the system.

Press ⌐▷ and then ✉ to open the Messages window. Use **F4** or **Esc** to close the window.

```
▼ Messages                                              □ ✖
Local
┌────┬─────┬─────┬─────┬───────┬──────┐
│AMS │ CSM │ DIM │ BCR │ SCALE │ HOST │
 2005-04-08 10:03:12.711513000 : INFO:MEASURING STOPPED
 2005-04-08 10:04:00.714658000 : INFO:WEIGHT (0000):    30.370 kg
 2005-04-08 10:04:02.718207000 : INFO:DIM DATA (0000):  24.5 x  2.0 x  14.2 cm
 2005-04-08 10:04:02.718304000 : INFO:SAVE DATA: ID=0000000005  EC=00  MODE=0
 2005-04-08 10:04:02.718383000 : INFO:  [0000] 24.5 x  2.0 x  14.2 cm
 2005-04-08 10:04:02.718449000 : INFO:  [0000] 30.370 kg
 2005-04-08 10:04:02.718682000 : INFO:dimsudp.so:VET message 0/05/0002/Started measuring.
 2005-04-08 10:04:02.718742000 : INFO:MEASURING STARTED
 2005-04-08 10:04:02.718872000 : INFO:dimsudp.so:VET message 0/05/0004/Stopped measuring.
 2005-04-08 10:04:02.718931000 : INFO:MEASURING STOPPED

                                                        Close
```
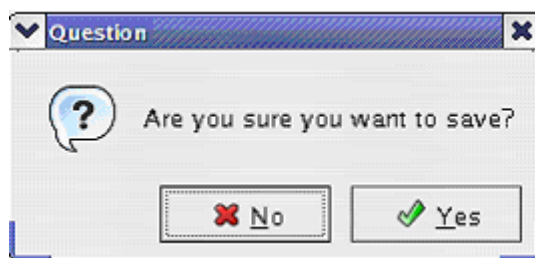
Figure 8 - Messages window

4 Appendix A

4.1 List of error codes.

Code	Description
0x00000002	Dimensioning instrument is not connected.
0x00000004	Bar code scanner is not connected.
0x00000008	Dimensioning instrument is not measuring
0x00000010	Scale indicator is not connected
0x00000020	Dimensioning instrument's error
0x00000040	Bar code scanner's error
0x00000080	Scale error
0x00000100	Alibi memory error
0x80000000	General software error, or the software is not initialized

The actual error code reported by the CSX software is a sum of these error codes. For example, if pulse encoders are not synchronized and the bar code scanner is not connected, the reported error code would be 0x00000005.

5 Appendix B – Declarations

The manufacturer of the system herein declares that:

- The European Standard EN 45501 : 1992 / AC 1993 and Welmec Guides for non-automatic weighing instruments have been adapted when designing and developing the software.

- Descriptions of legally relevant software modules, functions and interfaces in this document are complete and sufficient. There are no other legally relevant interfaces, modules or functions available.