

# How to use hsio.exe

FEE/StJe, Feb.2006



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## Introduction

After carefully examination of this short overview you should get familiar with the ECOSTEP hardware and its HSIO program. You should be capable to use it as tool for testing the drive's current position.

**Important:** This documentation requires a thorough knowledge of electric plants and relevant security rules.

**WARNING:** ANY CHANGES IN VALUES FOR THE DRIVE CAN CAUSE HEAVY DAMAGE AT THE DRIVE. ITS MECHANIC AND CAN CAUSE HEAVY INJURIES.

COMET don't guarantee the correctness of this document and will not be responsible for any damage /injuries caused by any handling at the machine.

All changes and any handling at the machine will be made at your own risk.

The program hsio.exe is a tool for adjusting and testing the axis driver.

Each axis has one driver.

## Needed tools

1 to 1 - RS232 connection, 9pol D-Sub connectors according to the schematic below.

Remote PC with RS232 COM connection.

Operating system: Possible is DOS6.22/ WinNT 4.0/ XP/2000 etc

## Installing the program/starting it

### RS232 connection

PC COM1/IRQ4 oder COM2/IRQ3	ECOSTEP X5
RxD 2	2
TxD 3	3
GND 5	5

Establish a connection to ECOSTEP Servo Amplifier according to the picture above.

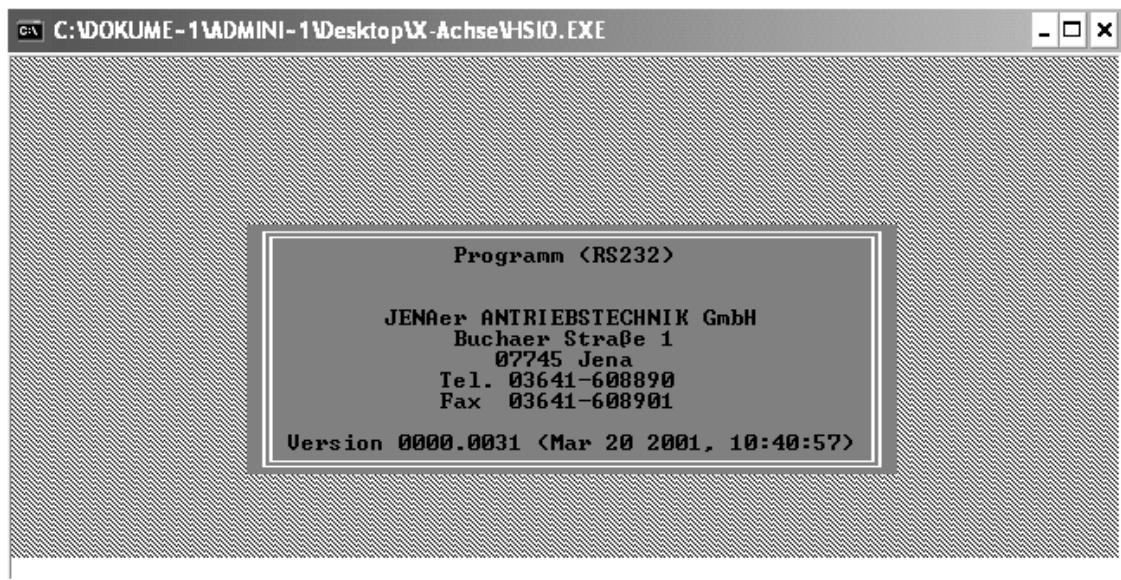
Make sure, that no other process share the COM port, maybe close all possible programs which might have access to the port.

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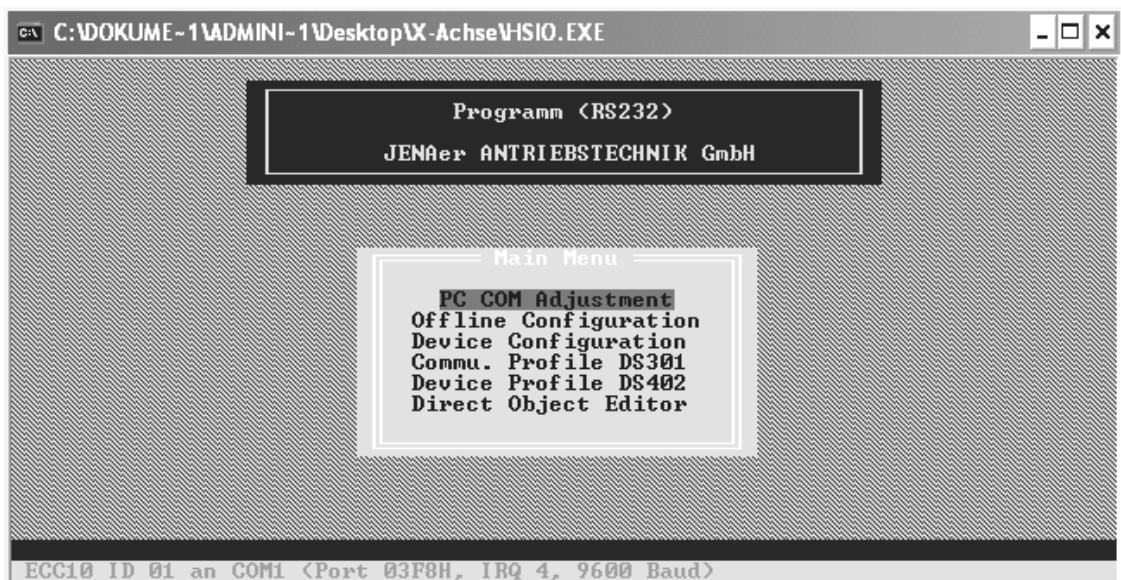
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It is not needed to install the program. It runs simply by double - clicking on the "hsio.exe" file, even from a floppy disk, or direct from the folder where you copied all the files which you were provided with.

Start the program "HSIO.exe".



The HSIO-start window appears, press <ANY KEY>, the...

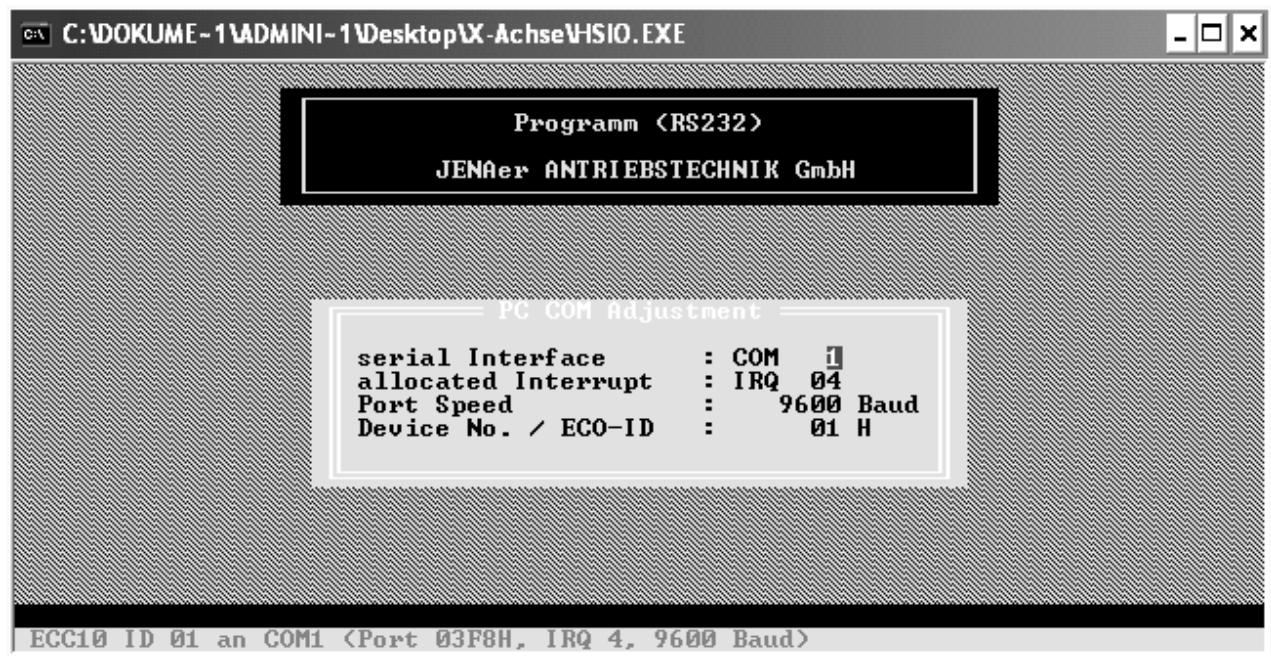


... "main window "appears.

Press <ENTER> for entering the "PC COM Adjustment"

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These are the default parameters. Check the COM port number, and its IRQ settings/speed. This setting depends on the remote computer.

The "Device No. ECO-ID" is given in "HEX" and means the Axis Driver Number:

The Device # are as follows:

AxisName	ECO ID
X	1
Y	2
ZT	3
XM	4
YM	5
ZD	6

After choosing the correct ECO ID, press <ESC>

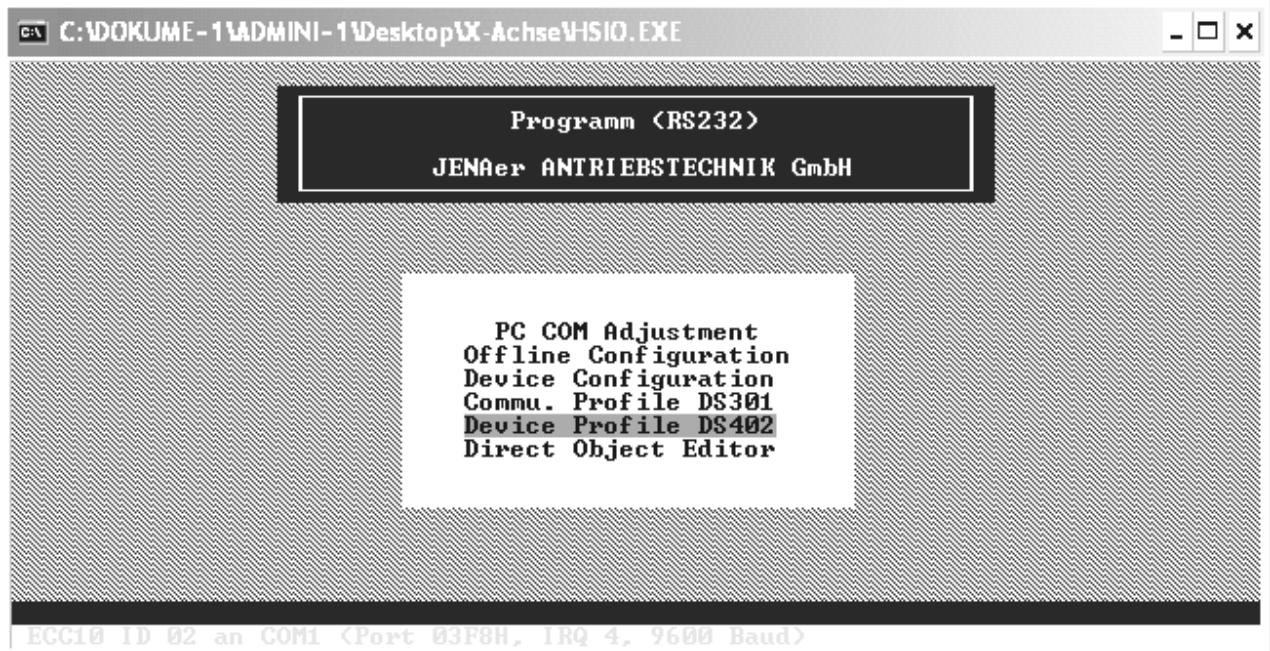
The "main menu" should appear again. If not, check the correct COM/ECO-ID # setting.

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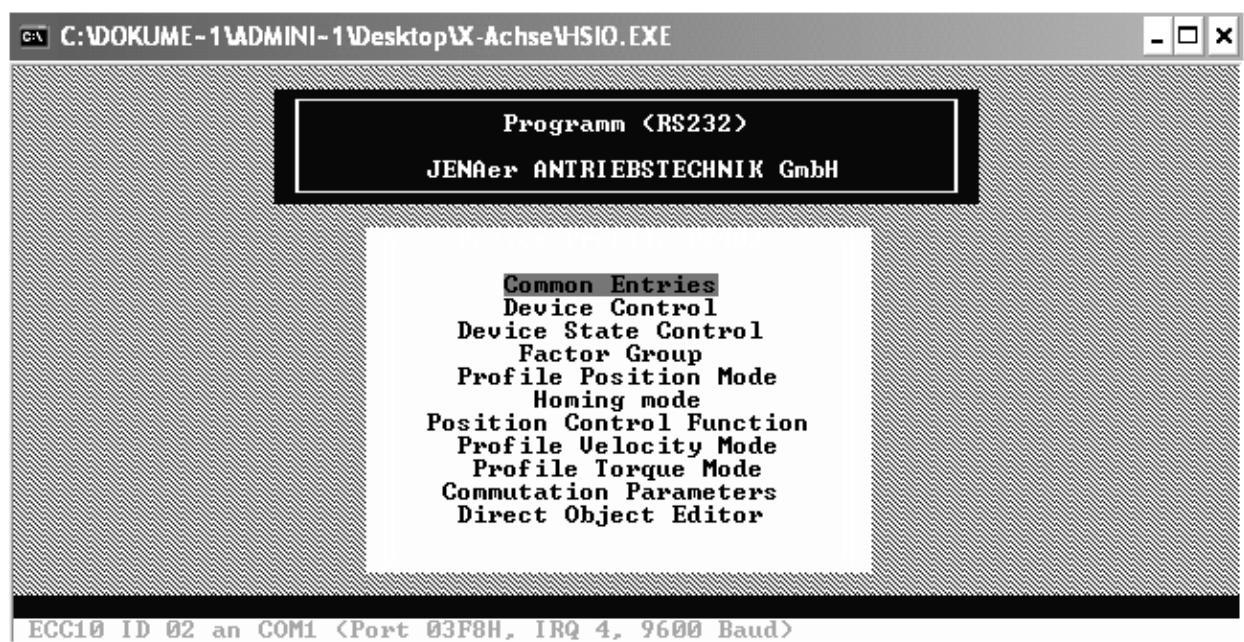


Get an overview about axis positions



Choose "Device Profile DS402"....

for opening the "Device Profile DS402" window.

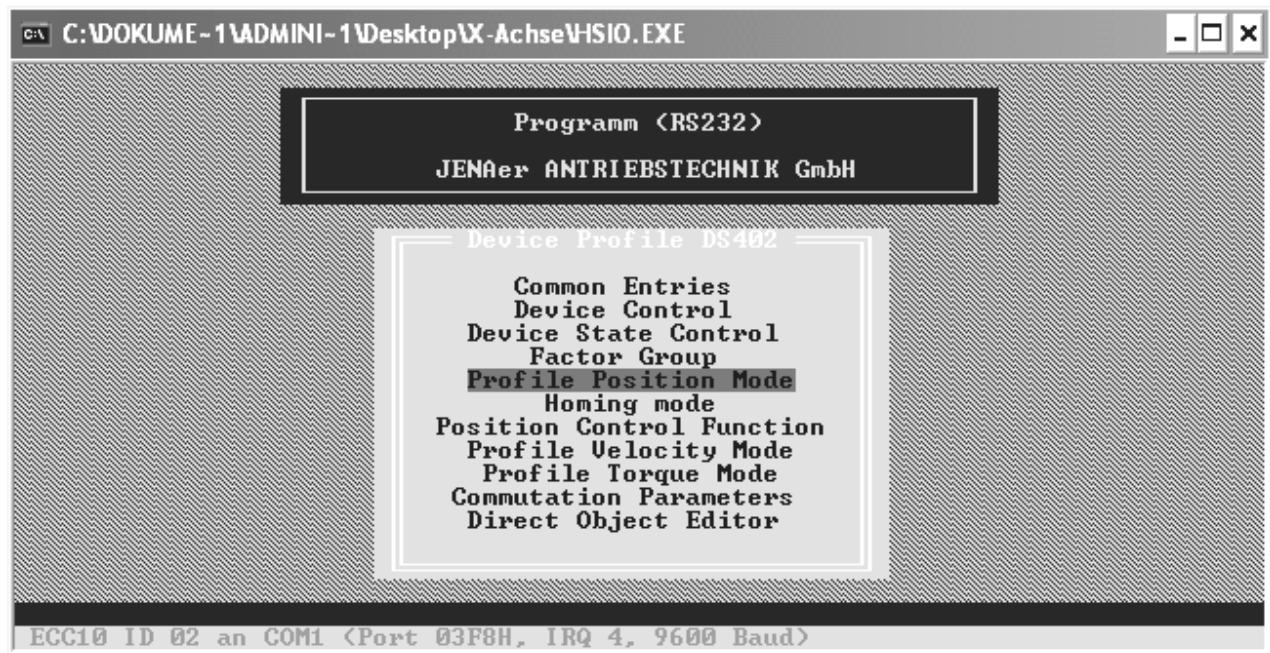


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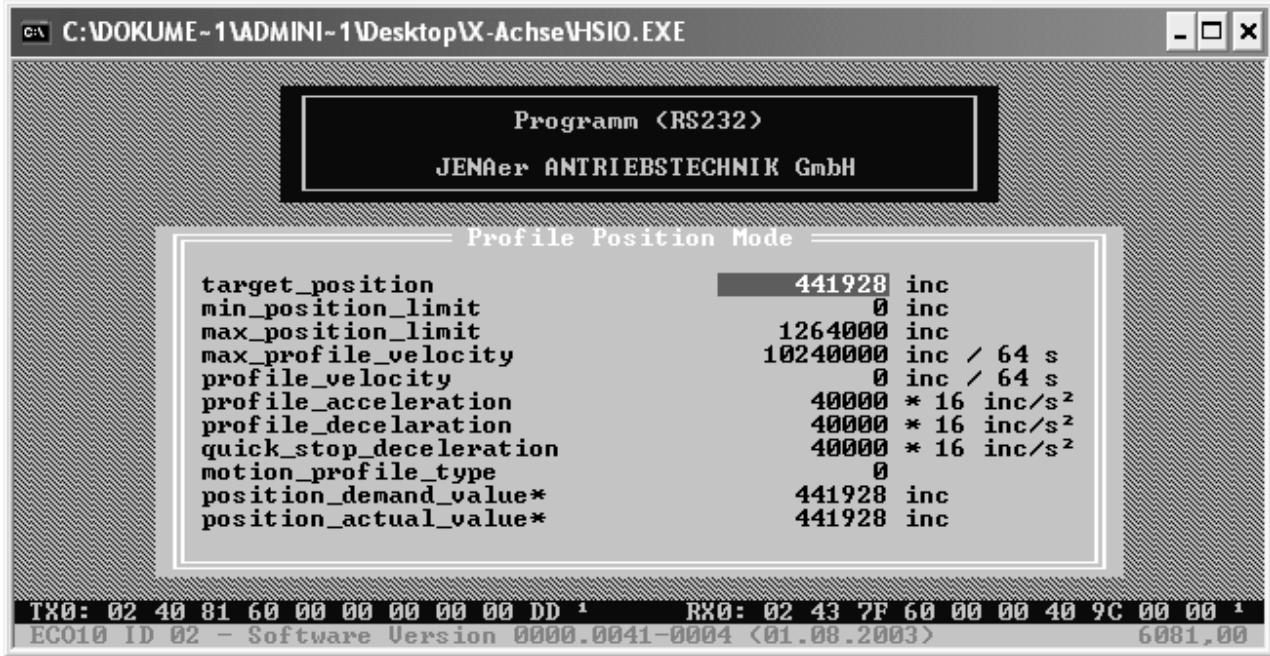
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For answering positioning questions choose “Profile Position Mode”, the ...



.....“Profile Position Window” appears:



target_position	441928	inc
min_position_limit	0	inc
max_position_limit	1264000	inc
max_profile_velocity	10240000	inc / 64 s
profile_velocity	0	inc / 64 s
profile_acceleration	40000	* 16 inc/s <sup>2</sup>
profile_deceleration	40000	* 16 inc/s <sup>2</sup>
quick_stop_deceleration	40000	* 16 inc/s <sup>2</sup>
motion_profile_type	0	
position_demand_value*	441928	inc
position_actual_value*	441928	inc

TX0: 02 40 81 60 00 00 00 00 00 00 DD 1      RX0: 02 43 ?F 60 00 00 40 9C 00 00 1  
EC010 ID 02 – Software Version 0000.0041-0004 <01.08.2003> 6081,00

The meanings are as follows:

The “target\_position” is the RPS position given from (for example) fieldbus.

The “position\_actual\_value” is the “actual position of the Motor” and after the regulation procedure should this be the same as the “target\_position”.

Please check if the “target\_position” is constant or if it is oscillating.

Quit the program with pressing <ESC> several times.