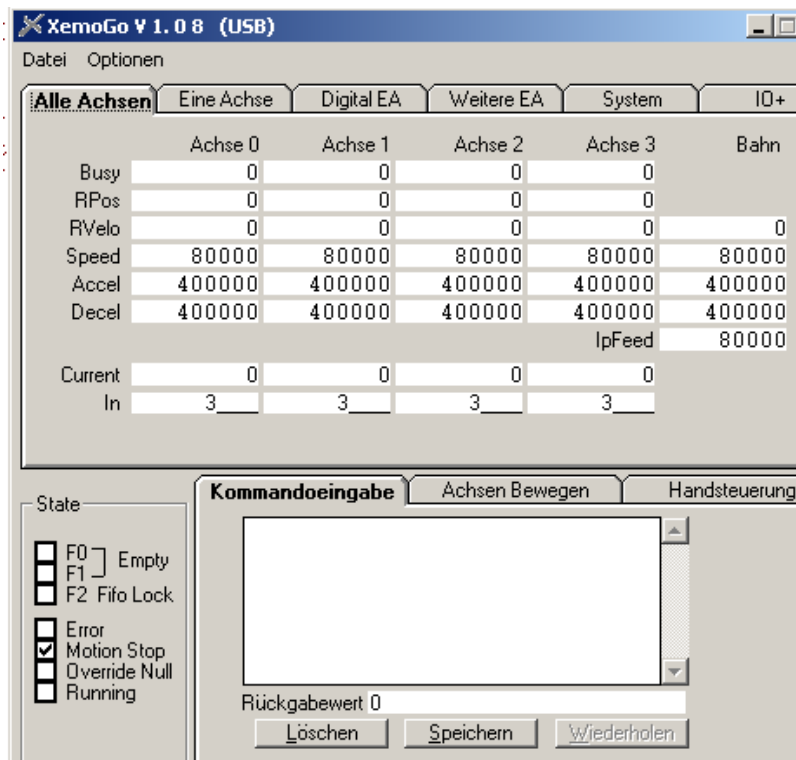


# Xemo!Go User Manual



Introduction to a powerful diagnostic tool

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## 1 Important symbols in this manual

 **DANGER**

indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**

indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**

indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

**NOTICE**

indicates a property damage message.



Identifies an instruction.



**Remark**

Please read passages, which are marked with this symbol, definitely. Get important information about dealing with these instructions and conditions or limits for the use of Xemo!Go.



**Tip**

Learn addition facts and practical tips in sections, which are marked with this symbol.

[SYSTECxxx]

The literature abbreviation [SYSTECxxx] refers you to other manuals by Systemec. See the bibliography in Chap. 6.

## 2 Motivation – Why use a diagnostic tool?

In order to achieve a diagnosis of a drive system, it is important to know what statuses are being observed by the controller or better the operating software in the Xemo controller because only these statuses determine the execution of the application program.

Clearly the LEDs of inductive switches or the LEDs of the Xemo controller are useful for the diagnosis of errors or for the check during the start-up procedure, but they do not serve to check the interface connecting the software. The LED of a reference switch on the Xemo controller might light up, but a defective optical coupler on the power stage components would prevent a correct reading of the actual signal.

If you wish to check more complex signals, such as an incremental encoder, you cannot do without a diagnostic tool.

Xemo!Go is the diagnostic tool from Systemec which helps you to check individual Xemo controllers as well as entire motion systems or overall systems which incorporate a Xemo controller.

## 3 Xemo!Go – Introduction

### 3.1 Purpose of use

Service technicians, programmers or system integrators know the difficulties which can occur during start-up or in trouble shooting more complex systems. In this case, all appreciate tools which enable accurate analysis of the status of the system or the device. Similarly, everybody appreciates the facility to instantly and quickly change a parameter, set an output or call up a function. This is exactly the kind of tool Xemo!Go is.

### 3.2 Features

Xemo!Go is a powerful and intuitively usable diagnostic tool included in the Motion Basic IDE for all Xemo device versions, offering the following useful functions:

- Online status display
- Direct activation
- Manual control of the axes
- Online entry of commands

**Online status display** You can check online the status of the following components and settings and thereby identify errors and malfunctions easily:

- All I/O channels
- All limit and reference switches
- All analog inputs
- Incremental encoder, override, hand wheel, joystick
- Internal voltages and equipment temperature
- All motor-specific settings such as
  - current
  - step resolution and
  - calibration

**Direct activation** Take advantage of the direct activation of:

- Digital outputs
- Analog outputs
- User LEDs in the device
- All motor-specific values such as
  - current
  - step resolution
  - speed
  - acceleration

**Manual control via virtual arrow keys** Use virtual arrow keys to control all motors or axes manually and thus define

- Relative motion/positioning
- Absolute motion/positioning
- Constant speed.

**Online entry of commands** Entry of commands in MotionBasic syntax, e. g. for setting parameters or for reading out values or statuses.  
For an overview of the online commands see chapter 9.6 of the Motion-Basic programming manual, [SYSTEC717].

**... if an error is present** Is an error present, the execution of FIFO commands are blocked.

In this case replace

- Set by:           Seti,
- ASet by:         ASeti,
- IOSet by:        IOSeti,
- Out by:           Outi,
- Outw by:         Outwi.

Furthermore, there are also many additional possibilities to intervene or to make a diagnosis which can be called up or activated by mouse click or by entering the corresponding numeric value.

## 4 Installing and starting Xemo!Go

### 4.1 Pre-requisites for the use of Xemo!Go

- Operating system**      The Xemo!Go diagnostic tool is part of the Motion Basic IDE. This software is executable with the following operating systems: Windows 98, Windows 2000, Windows XP, Windows 7 as well as Windows 10 on PCs or notebooks. A correct execution is only possible in German or English language setting of the operating system. MotionBasic including Xemo!Go must be installed through “setup” on the PC.
- Connection of Xemo controller – PC**      The Xemo controller itself must be connected to the PC either via RS232 cable (pin assignment: 2-3, 3-2, 5-5; all other slots remain free) or via USB or Ethernet (TCP/IP) cable. If the RS-232 interface on the Xemo controller is already assigned due to the application, only the USB or Ethernet interface can be used, provided that the Xemo controller has got one.
- How to deal with running application software**      If an application software is flashed into the Xemo controller, Xemo!Go can be operated concurrently; it can be used to observe the execution run by means of inputs and outputs or by means of motion procedures online.
- Start without application**      You can also use the diagnostic tool to visualize the controller or the system without having started an application. For this purpose, the operating mode switch of the controller must be set to position “F”.

### 4.2 Calling up Xemo!Go



**Remark**

Xemo!Go requires the activation of the controller and the start of the firmware, otherwise there will be an error message immediately. After activating the Xemo controller, you should wait until the user LEDs have run through from U0 to U7 before starting Xemo!Go.

If an error occurs on the serial interface, the cable, the selected form of transfer (TCP, USB or RS232) or the baud rate must be checked.

- Calling up**      You can call up Xemo!Go directly or from the MotionBasic IDE.
- ... directly**      In your MotionBasic IDE folder, and in the Windows Start menu you find a directly executable Xemo!Go.exe.
- ... from the IDE**      Xemo!Go is integrated into the MotionBasic IDE. Therefore you must first activate MotionBasic in order to start Xemo!Go. The activation of Xemo!Go is located behind the stylized “X” in the tool bar. Xemo!Go is integrated into the IDE in this case, i.e. as long as Xemo!Go is running, you cannot access the IDE.





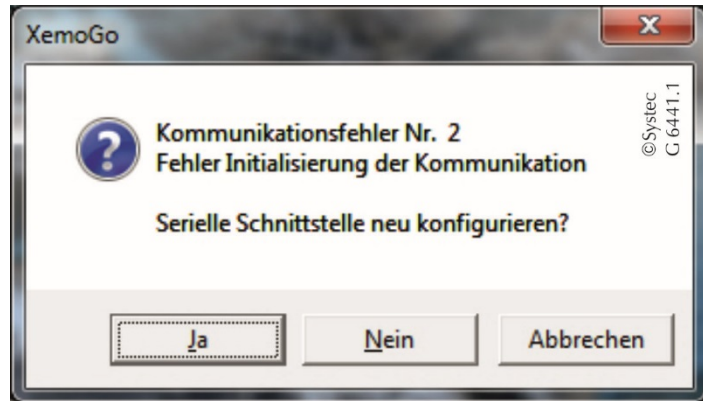


Abb. 1 Error message when the Xemo is not yet ready or the Xemo cannot be addressed through the selected interface.

**Configuration of the interface**

The in Xemo!Go selected interface must match the interface set in the Xemo.



Abb. 2 Configuration of the interface, in the example of the Ethernet interface by entering the IP address and the timeouts.



**Tip**

For Xemo controllers with Ethernet interface, the parameter 1407 specifies the communication interface. You read and modify the value with USB:

- via Xemo!Go in switch position E or
- via XemoUpdate.exe in switch position A.

Read the IP address of the Xemo control in dot notation also via XemoUpdate.exe.



**Remark**

No matter what the presetting (set-up parameters) of the communication interface is – communication in the operating mode with switch position "E" is always done via the RS232 interface with 19,200 Bd, or for Xemo controllers with Ethernet interface via the USB interface. It is important to know that stored application programs are not started in this operating mode.

### 4.3 Operating mode switch

Here switch positions “0” and “F” are addressed only briefly.



**Tip**

You can find comprehensive descriptions concerning the functions of the various positions of the operating mode switch in the respective Xemo controller manual, [SYSTEC625] – [SYSTEC776].

**Switch position “0”** The application program, if stored in the controller, is started automatically.

**Switch position “F”** It is only the operating system that is started in the controller. You must initialize the axes via the PC in order to be able to move them.

### 4.4 Initializing the axes

Axes must be initialized to be able to move them with Xemo!Go, i.e. parameters, such as motor current, step range, speed and acceleration, must be defined.

To initialize the axes, you can define the necessary parameters via a MotionBasic program

- the command line by entering “Aset” (in Xemo!Go)
- the fields in the mask “Eine Achse” [= One axis] (in Xemo!Go)

The minimum of initialization is to define the motor current.

You will find more information concerning the initialization of the axes in Chapter 2 of the MotionBasic Programming Manual [SYSTEC717] and concerning the syntax of the command “Aset” in Chapter 9.8 of the same manual.

**DriveSet customers** You have been provided with an example program with your system which includes an initialization program. This contains the optimum parameters pre-set for your system.

Set the operating mode switch to “F” and run only this initialization program in the controller by, for example, setting a breakpoint after this part of the program.

Now you can use Xemo!Go as described in Chapter 5.

### 4.5 Note concerning the screen display

Depending on the used interface (USB or RS232) and on the selected baud rate, the device status is updated approx. five times per second; thus rapidly changing signals at digital inputs can only be checked to a limited extent.

## 5 Xemo!Go used in practice

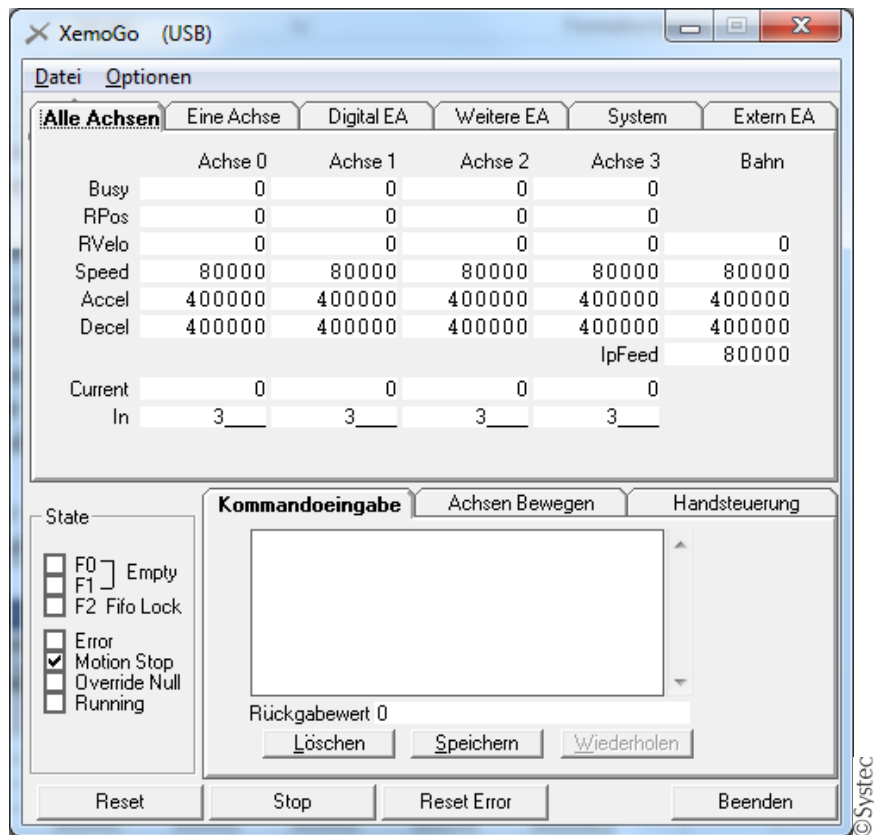
The following part gives examples which provide the programmers and service technicians with useful tips when starting the software or when encountering incidents.

### 5.1 Structure of the Xemo!Go user interface



**Remark**

Please note that the Xemo!Go user interface always looks the same, no matter what the controller or the number of axes is. Non-existing inputs and outputs are not indicated as non-existing.  
 If, for example with Xemo B, only four digital inputs are available, the display will indicate 8 inputs but only the inputs 0-3 will show a real value.  
 Please refer to your Xemo controller manual for the correct number of digital and analog inputs and outputs, [SYSTEC625]-[SYSTEC764].



**Fig. 1 Xemo!Go user interface**

**Alle Achsen**  
 [= All axes]

Display and entry mask of axis and motor parameters for all axes

**Eine Achse**  
 [= One axis]

Detailed display and entry of parameters of one axis

<b>Digital EA</b> [= <b>Digital IO</b> ]	Display and setting of digital inputs and outputs as well as user LEDs; display of connected axial switches and position of operating mode switch; display of readiness, enable and emergency stop control (only Xemo R)
<b>Weitere EA</b> [= <b>Further IO</b> ]	Display of analog inputs, output of analog voltage; display of joystick, override potentiometer (only Xemo R) and hand wheel (only Xemo R)
<b>System</b>	Display of Xemo system parameters; firmware version (important for further enquiries at Systemec)
<b>Extern EA</b> [= <b>External IO</b> ]	Components externally connected via CAN bus
<b>State</b>	Display of input buffer, motion status, override potentiometer=0
<b>Kommandoeingabe</b> [= <b>Entry of commands</b> ]	Entry of commands in MotionBasic syntax, e. g. for setting parameters or for reading out values or statuses
<b>Achsen Bewegen</b> [= <b>Move axes</b> ]	Selecting and moving an axis by entering values
<b>Handsteuerung</b> [= <b>Manual control</b> ]	Moving an axis by mouse click, setting operating mode and step range

## 5.2 Displaying and changing axis or motor parameters

Motion is one of the main functions of a machine or kinematic system. It must be ensured here that motors rotate as required.

Xemo!Go can be used to check basic functions very easily both during start-up and maintenance operations.

### Overview of whole system

There are two masks in Xemo!Go which can be used to indicate or change the motor or axis parameters. If you wish to have an overview of the whole system, the recommendation is to select the mask “Alle Achsen” [= All axes]. This mask shows the most important parameters or status details and it is here that you can change them by mouse click and entry of data.



If you wish to observe a system in the continuous path mode (multi-dimensional contours), you must select the mask “Alle Achsen”. After the four individual axes, path information is given in the last column, see Fig. 2.

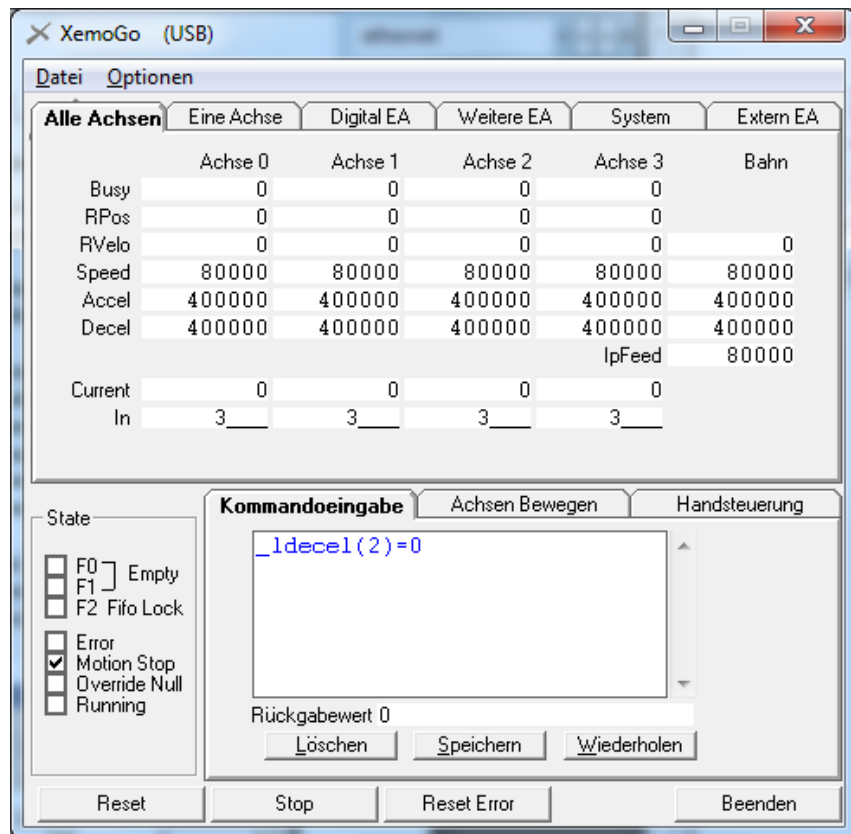


Fig. 2 Display of path information in the right column within the window “Alle Achsen” [= All axes].

### Overview of one axis

If you are interested in a particular drive, you can select the mask “Eine Achse” [= One axis] and you will see all motor or axis information and the parameters can be changed.

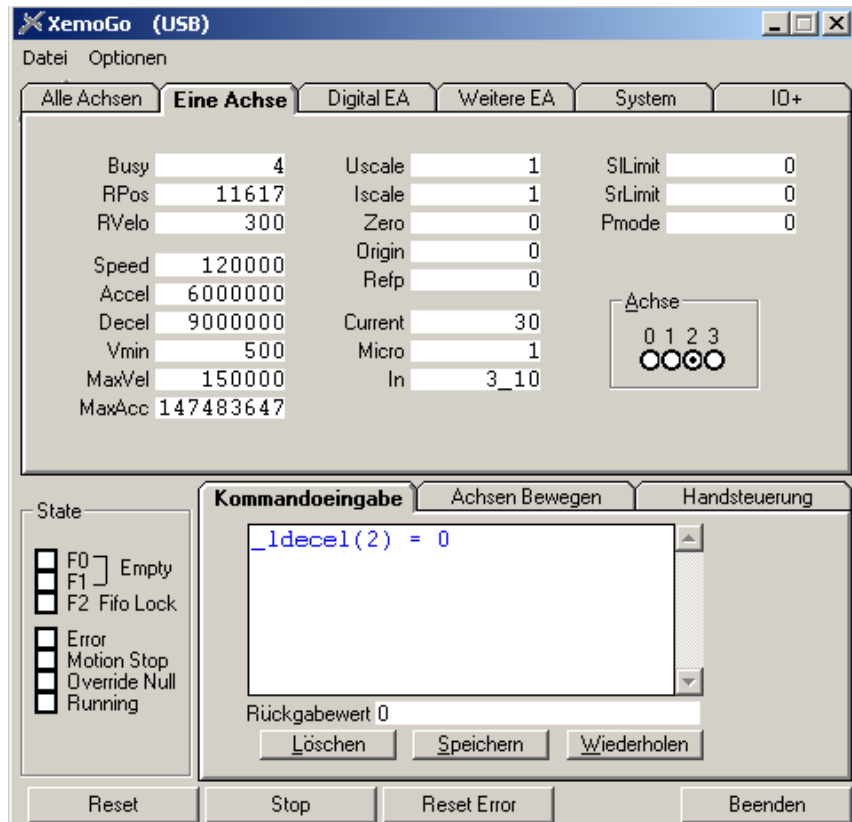
When calling up this mask, the axis 0 is pre-set; if you wish to call up another axis, you must select the desired axis in the menu "Achse" [= Axis].

**Setting motor current** No matter which presentation is selected, the motor current must be set for Xemo R and for Xemo S controllers in order to be able to move the motors. The following screenshot in Fig. 3 shows a selection of 30% of the maximum rated power of the axis amplifier. Apart from "Speed", the acceleration "Accel" and the deceleration "Decel", all pre-settings remain unchanged in this example.



**Remark**

The command "`_ldecel(2) = 0`" was used in the online command entry to deactivate the limit switch monitoring for axis 2 (emergency ramp was set to deceleration 0).



**Fig. 3** The axis is being moved (Busy: unequal 0) at 300 steps/s (RVelo: 300) and has reached the position (RPos: 11617) 11617 steps or increments in a positive direction. Both limit switches are closed.

**Changing parameter values**

Fig. 3 shows the following pre-set parameter values: The axis is not scaled (Iscale: 1, Uscale: 1), it is moving with maximum  $\mu$ -step resolution (Micro: 1) and the software monitoring of the axial limits is deactivated (SILimit: 0 and SrLimit: 0).

Parameters can be changed by mouse click on the selected entry; this will be marked blue and can be overwritten. In order to apply the new value, you must press the return or entry key to confirm it.

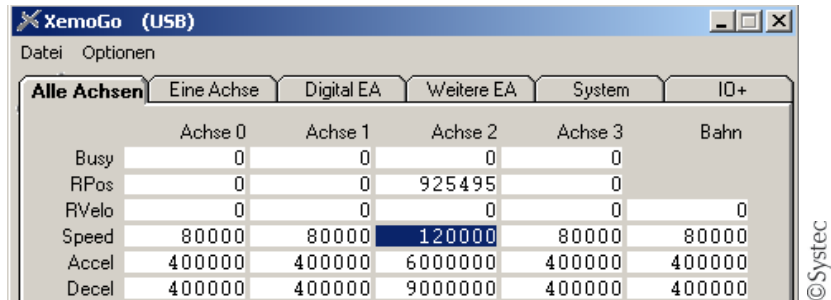


Fig. 4 Changing parameters by clicking on the respective field.

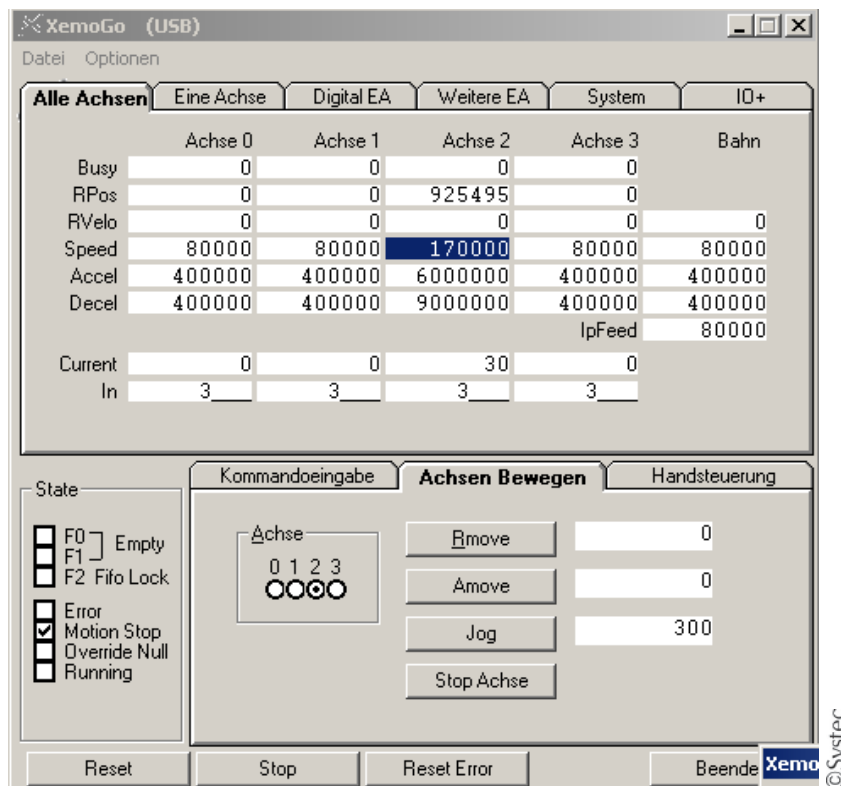


Fig. 5 Entering a new value

**Faulty entry**

In case of a faulty entry, another window with an error message opens up and the original value remains unchanged.

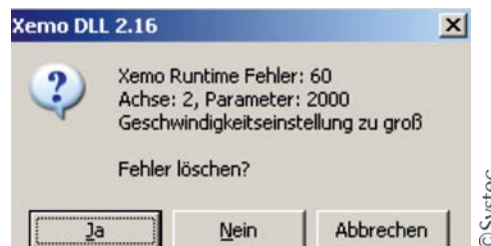
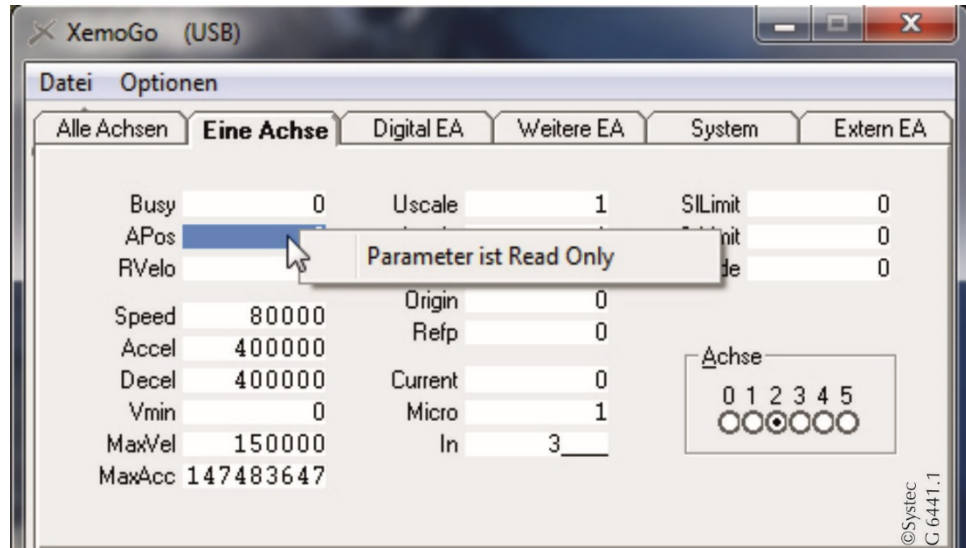


Fig. 6 Error message after a faulty value has been entered. The entered value exceeds the maximum speed of 150000.

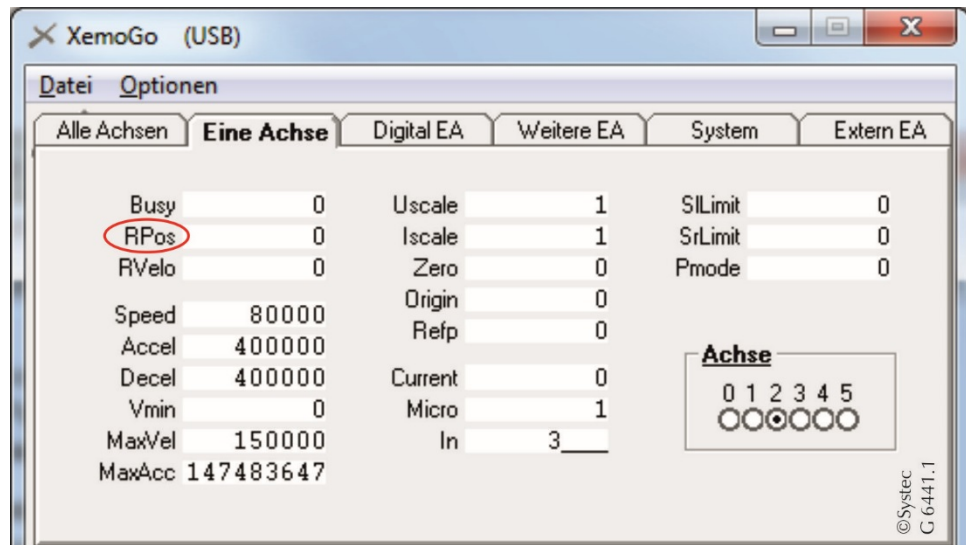
**Parameter values read only**



**Fig. 7** Some parameter values can be only read, not overwritten.

**Change of the displayed parameter**

You can change not only the values of the parameter, but also the display of the parameter itself.



**Fig. 8** In the mask "Eine Achse" [= One axis] we want to select another than the currently displayed parameter, here the example of RPos.



**Tip**

Changing the parameter will work in the masks "Alle Achsen" [= All axes], "Eine Achse" [= One axis], "Weitere EA" [= Further IO] and "System".



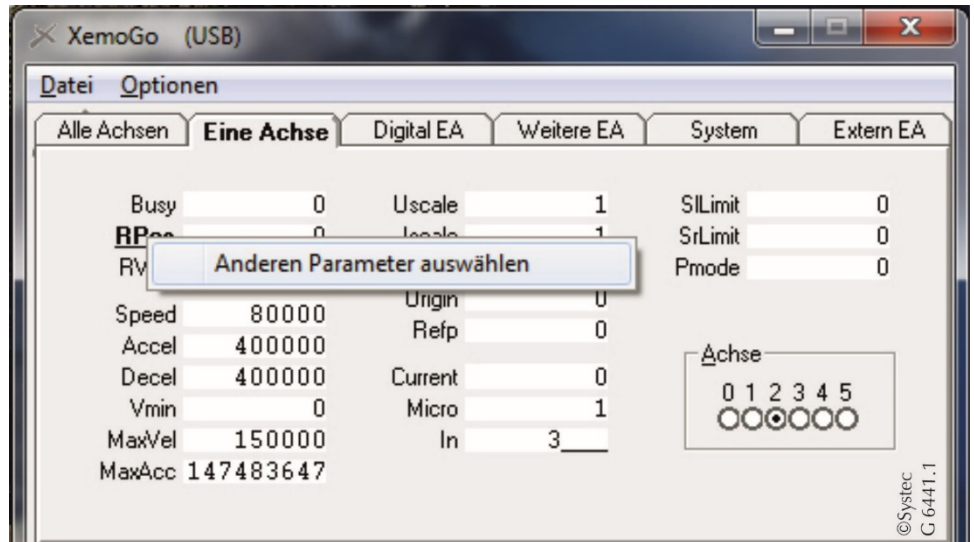


Fig. 9 Right click on RPos calls out the dialog box to modify the parameter, "Anderen Parameter auswählen" [=Select other parameter]

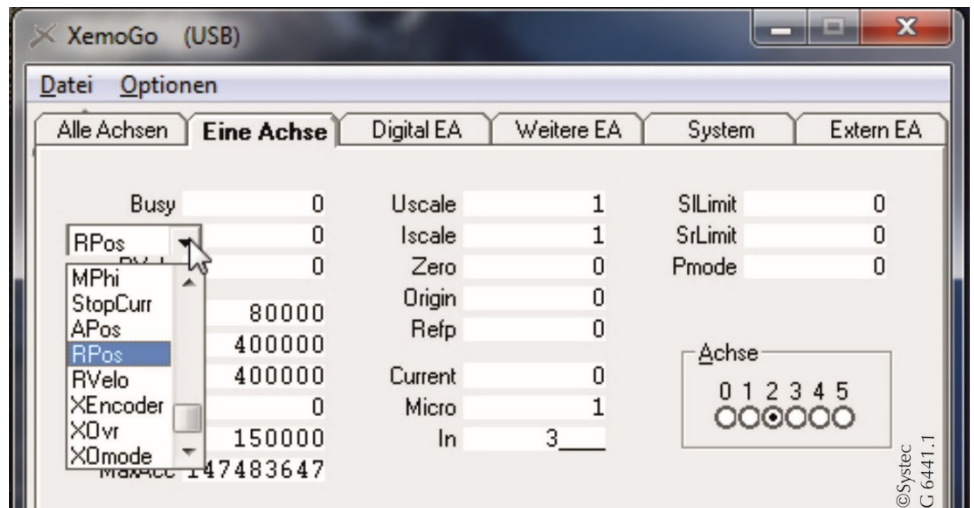


Fig. 10 The possible parameters are displayed in the pull-down menu

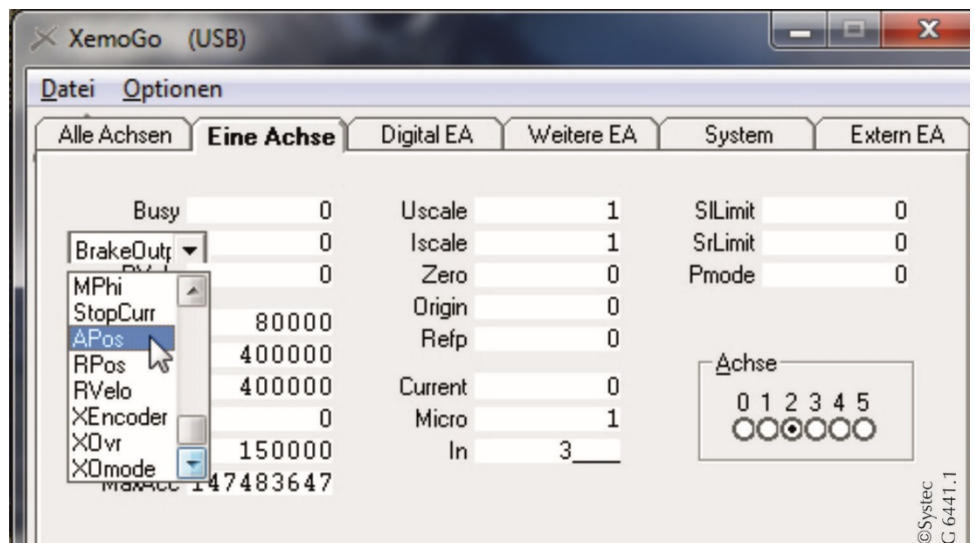


Fig. 11 Select the new parameter and confirm it by pressing the return or entry key

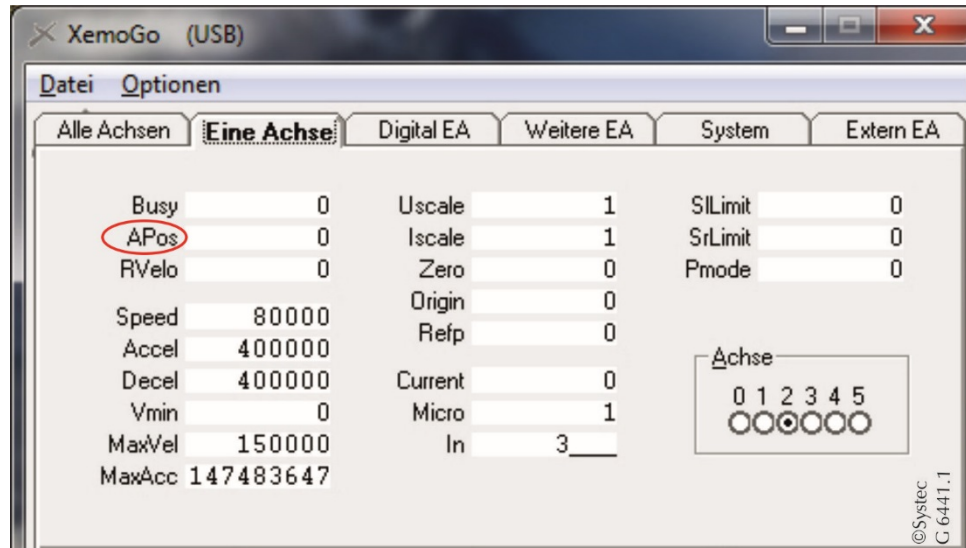


Fig. 12 The new parameter is displayed.

### 5.3 Moving motors or axes

**Move axes**

Using Xemo!Go, there are two different ways of moving the axes. In the mode “Handsteuerung” [= manual control], you can move the motors or axes just by mouse click on the direction arrows. You can also choose in this entry mask whether you prefer to operate the axes in the jog mode or the step mode and which speed or step range setting you prefer.

**Rmove  
Amove  
Jog**

In the mode “Achsen bewegen” the motors or axes are moved through selection of the operating modes “Rmove” (relative positioning), “Amove” (absolute positioning) or “Jog” (rotational speed) and through entry of the position or rotational speed.

The axis 0 is preset in this operating mode, other axes can be selected in the field "Achse".

Both operating modes require that the current be set > 0% for the selected axis amplifier.

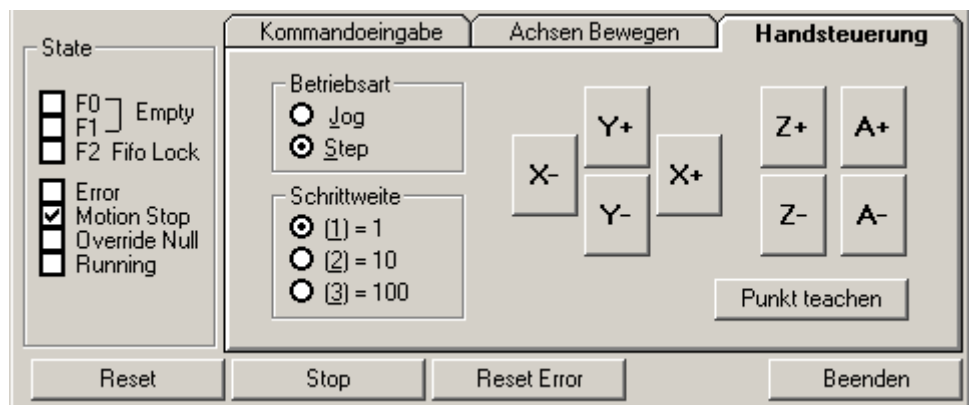


Fig. 13 Manual control set to step mode with step range [= Schrittweite]

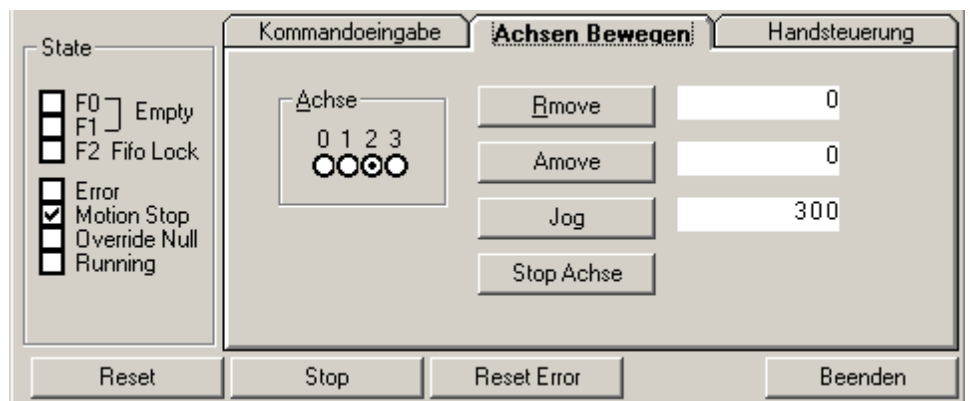


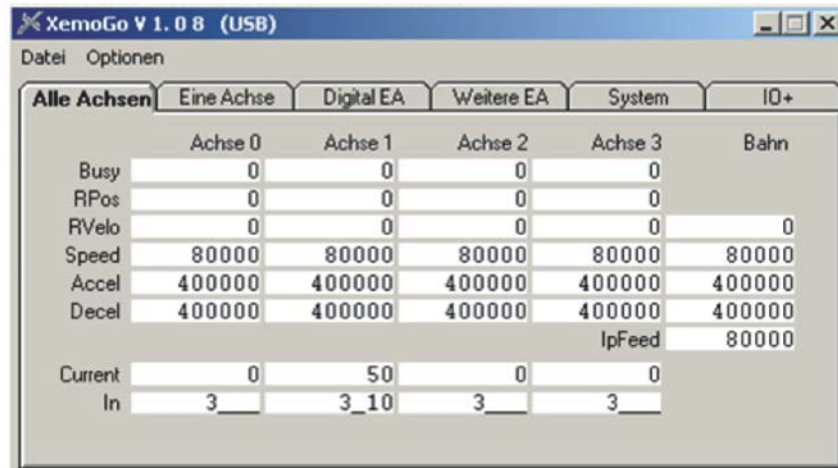
Fig. 14 “Achsen Bewegen” [= Move axes] with selected axis 2 and rotational speed at 300 steps/s



**Remark**

You cannot and must not use this simple procedure for vertically moving axes without self-locking or with brakes!

**Move axis via manual control – Setting of motor current**



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G.5715.1

**Fig. 15** For this manual procedure, the motor current has to be defined in the field “Current” beneath the selected axis (in % of the maximum rated current of the power stage); the example in the screenshot shows 50% of a 3A power stage for axis 1, i.e. 1.5A motor current.

**Motor with brake (Xemo R and Xemo S only)**

For axes with brakes, you must first activate the brake. To set the parameter `_BrakeOutp` (2035) for the respective axis with the brake to a value > 0 for example `_Brakeoutp(0) = 1` for the axis 0.

**Motor via external power stages**

If your motors are controlled via external power stages, you must register them before proceeding. For example, `_NodeId(0)=1` for the axis 0 of the node address 1.  
You must have configured the power stage for the motor of course previously. A possible brake is then automatically activated by the power stage.



**Tip**

Run these individual commands by entering them in the command box easily, see Fig. 16.

**Turn off limit switch control**

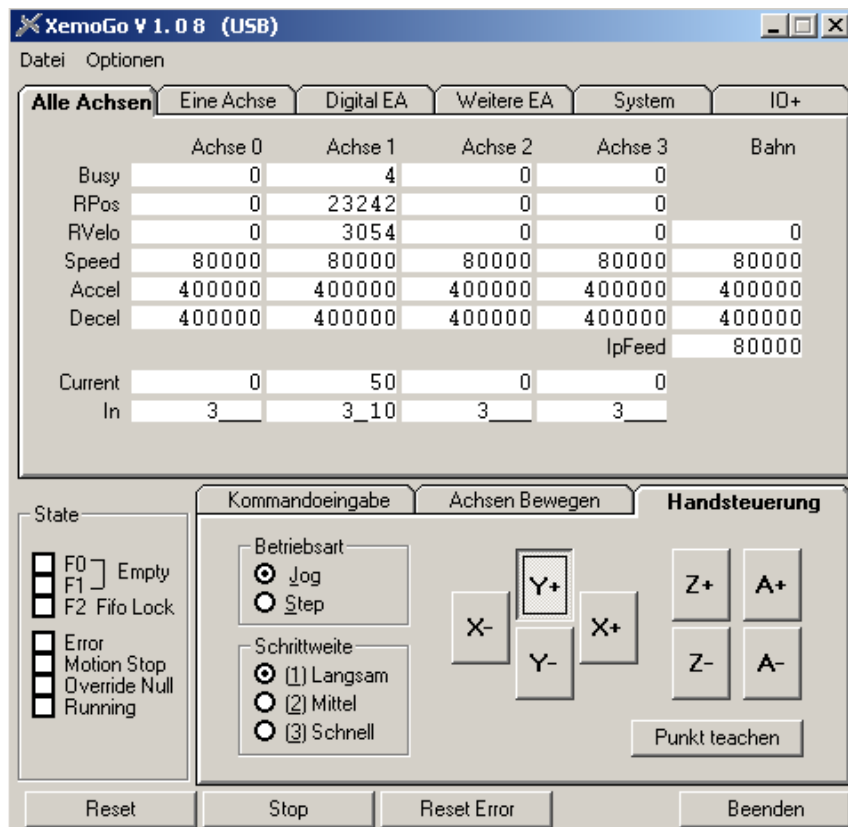
If you wish to turn off the limit switch control, you must enter the blue command in the command box, see Fig. 16, with the digit in brackets indicating the selected axis.



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G.5715.1

Fig. 16 You turn off the limit switch control by entering “\_ldecel(1) = 0”.

**Handsteuerung**  
[= Manual control]



©Systec

Fig. 17 Screenshot of how to move the axis by mouse click

**Manual control: Default settings**

Use the mouse to click on the desired arrow key (“Y+” in the screenshot), the axis moves into the selected direction, with default settings “Jog” (continuous movement) having been used with a weak increase in speed (slow step range) - something which is reasonable for toothed belt axes without gearing.

For spindle axes or toothed belt axes with lower gearing, the recommendation is to set the “Schrittweite” [= step range] to “mittel” [= medium] or “schnell” [= fast].

## 5.4 Checking limit and reference switches

### 5.4.1 Display of limit and reference switches

#### Display of limit and reference switches

The correct functioning of reference and limit switches is an important requirement for motion systems. The Xemo!Go diagnostic tool allows you to see the inputs and outputs of the reference or limit switches pertaining to all axes in the main window.

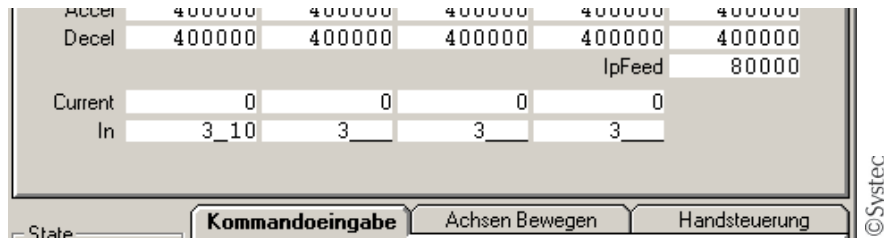


Fig. 18 Display of limit switches in line “In” of the Xemo!Go user interface. Motor 0 (left column) has both limit switches closed in the example shown here.

#### Interpretation of inductive switches display

The status of the inductive switches is coded through a four-digit combination of underscores and digits:

- First digit: ready of power stage slot,
- Second digit: reference switch,
- Third digit: negative limit switch and
- Fourth digit: positive limit switch.

#### Meaning of digit and underscore

The meaning of the axis-related inputs is defined as follows:

- An underscore means 0V and
- A digit means 24V

at the corresponding input of the controller.

Depending on whether the inductive sensor is a NC or a NO, a digit or an underscore is indicated in an unassigned status.

This only applies if the axis-related inputs are not logically inverted through activated application software.

#### Power stage slot of the controller

Digit 3 indicates that there is no power stage slot error; if an underscore is visible here in the window, the power stage is not ready for operation or is defective.

Looking at the inductive sensors one after another, the following input statuses are possible:

3_0	Positive limit switch is closed, 24 V are identified at the controller input
3_1_	Negative limit switch is closed, 24 V are identified at the controller input

32__	Reference switch is closed, 24 V are identified at the controller input
------	--

However, combinations as shown in the screenshot above, Fig. 18, are also possible; in this case, both limit switches are closed for power stage axis 0 and the reference switch is not assigned.

### 5.4.2 Test of inductive switches

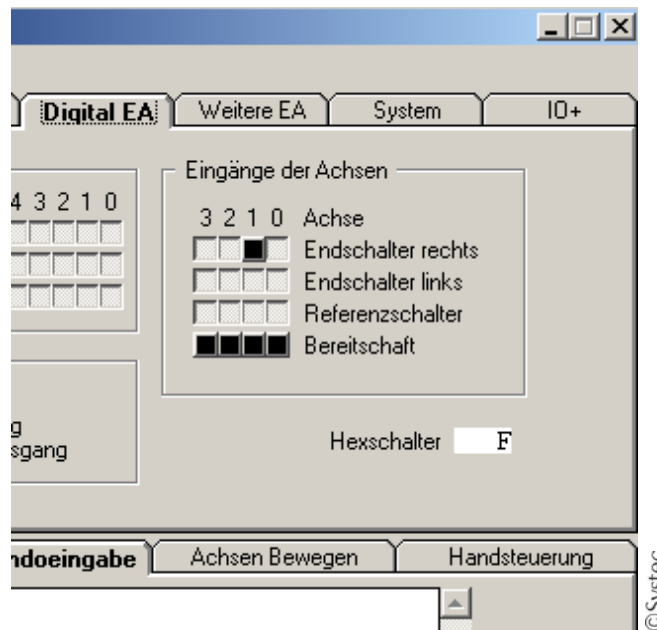
#### Test of inductive switches

If you apply a metal object to the inductive switch to test the switch, you can see in the mask "Alle Achsen" immediately if the assigned input of the corresponding axis is identified correctly by the operating software of the controller.



**Tip**

The status of the axis-related inputs can also be observed in the mask "Digital EA" where application of 24V to reference or limit switch inputs is indicated through black squares which can be read or recognized better perhaps.



**Fig. 19** This screenshot shows that the positive limit switch of power stage 1 is closed, the negative limit switch and the reference switch are open.



**Tip**

If it is difficult to assign the switches and to observe the changes on the Xemo!Go user interface in situ simultaneously, you can move the axis manually to the limit and reference switches and back to check the correct functioning of these switches.

During this process, no other application software should be running. The limit switch control can be turned off at the operator's own responsibility. The procedure of moving the axes manually see chapter 5.3.

### 5.5 Reading out encoder input

As soon as your Xemo controller has been turned on, the encoder impulses - produced by a motor or an external encoder – are read in the controller and evaluated correspondingly in the programming.

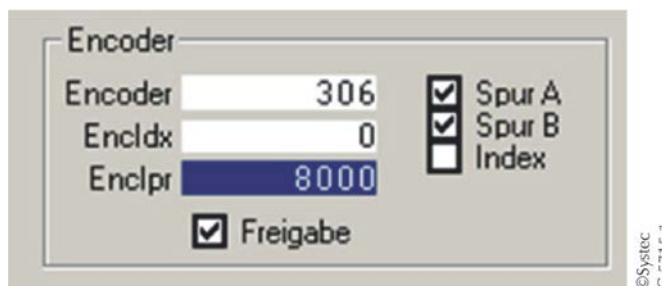
**Encoder group box** With Xemo!Go, you can read out an encoder input with track A [= Spur A], track B [= Spur B] and index impulse and observe the current position in the group box “Encoder”.



**Fig. 20 Encoder group box when activated; enable [= Freigabe] not yet activated.**

**Enable still inactive** After starting Xemo!Go, enable is not set yet. Impulses of the tracks and the index, on the right in the picture (e.g. Fig. 20), are indicated but a signal evaluation does not take place yet, i.e. the fields on the left in the picture are inactive. This enables you to check the signal inputs by means of the indicated track signals.

**Active encoder when enabled** After activating the enable, the current position is indicated here; the current position may be unequal zero if the encoder was moved before the activation of the enable.



**Fig. 21 The encoder group box after activation of the enable. The impulses of track A and B are indicated as well as the current position (encoder text field).**

**Set zero position** You can define your current position as zero position by means of the encoder group box by entering a zero in the encoder text field and pressing the entry key to confirm it.

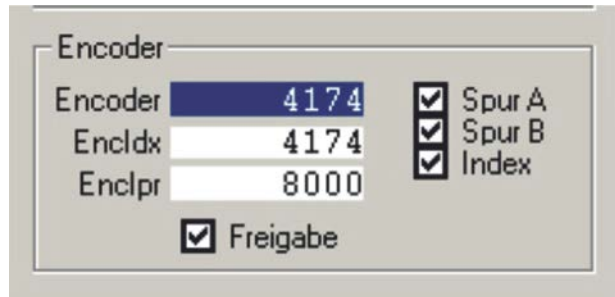


**Error evaluation**

When the enable is activated, the signals are evaluated and an error evaluation is conducted automatically so that this option can help you with your system analysis.

**Encldx**

This indicates the position where the last index impulse was received.

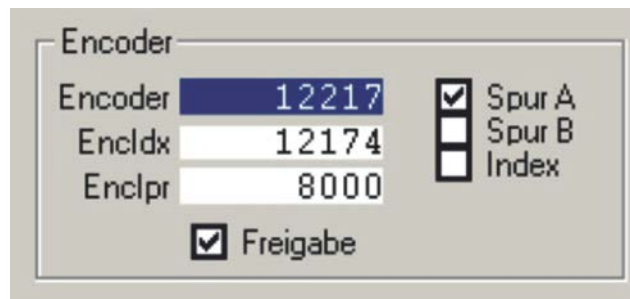


**Fig. 22** The index impulse appears, at step 4174 here. 8000 steps are one revolution in this example (Enclpr).



**Remark**

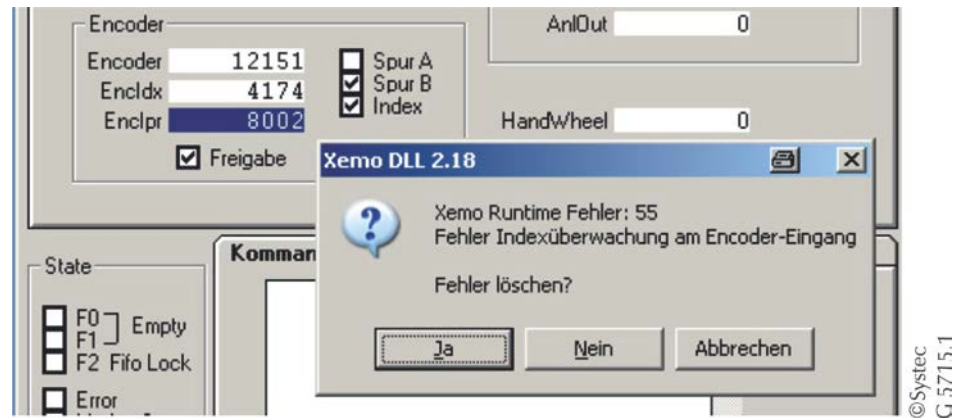
The index impulse will be counted and evaluated only if track A, track B and index appear concurrently (see Fig. 22). If only one track is indicated along with the index impulse, you must reverse the cables of the track not indicated: + to -, and - to +.  
Only if index positions are counted, is it possible to monitor the index.



**Fig. 23** The next index impulse is counted after one full revolution; in this example:  $4174 + 8000 = 12174$ .

**Encoder monitoring**

The incremental encoder is monitored by means of counter fields if you enter the step number per revolution in the field Enclpr. Xemo!Go calculates the difference between the two last positions where the index impulse was measured. If this difference is unequal zero or unequal the step number entered in Enclpr, an error message will occur.



**Fig. 24** Error message during encoder monitoring. The number of entered steps per revolution does not match the measured number of steps indicated by the next index impulse.

### Enclpr

Enter the number of steps per revolution for a desired encoder monitoring here.

If applicable, a selection list will occur which shows you the recently entered values.

Press the return key to confirm your entry or selection.

### Deactivate encoder monitoring

If you wish to deactivate the monitoring, set the value to zero either directly in the field Enclpr or in the command line (`_Enclpr = 0`).

## 5.6 Digital inputs and outputs

### 5.6.1 Checking digital inputs

The digital inputs of Xemo controllers are used in many units or systems to provide a starting signal for movement to a specific position, for example, or for starting a contour for gluing.

The inputs which are connected directly to a Xemo controller can be observed in the mask "Digital EA".

Inputs which are connected to 24V are marked with a black square while inputs not connected to a signal remain light.



**Remark**

Due to the hysteresis of the input wiring, it must be securely established that voltages for a "0" and for a "1" are in specific ranges. "0" and "1" are clearly identified with the following input voltages:

- Logic 0:  $0 < \text{input} < +7\text{V}$
- Logic 1:  $12 < \text{input} < +24\text{V}$

The input can be recognized as "0" or "1" between 7V and 12V!

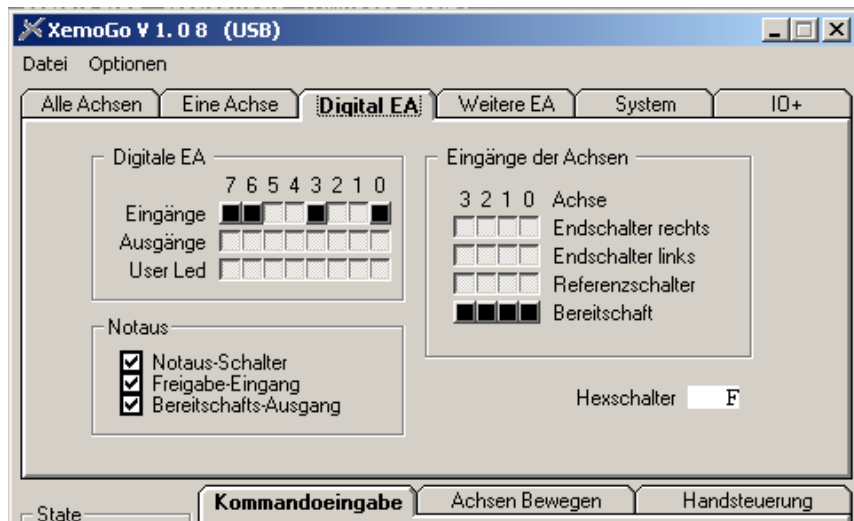


Fig. 25 Screenshot displaying digital inputs, outputs and user LEDs of the controller and pertaining to the limit switches of the individual axes. In the example shown here, inputs 0, 3, 6 and 7 are connected to a voltage of 24V and other inputs are not connected to any voltage.

### 5.6.2 Setting digital outputs

Quite often you just want to set a digital output to check if a device connected to it functions properly. This can be done simply within the mask "Digital EA".

The corresponding output is set or reset in line "Ausgänge" by using the mouse. One mouse click changes the status from activated to deactivated and vice versa.

An activated output is indicated by a black square. In the screenshot in Fig. 26, the output 5 has already been activated, while for output 1, the mouse click for changing from "deactivated" to "activated" can just be seen.

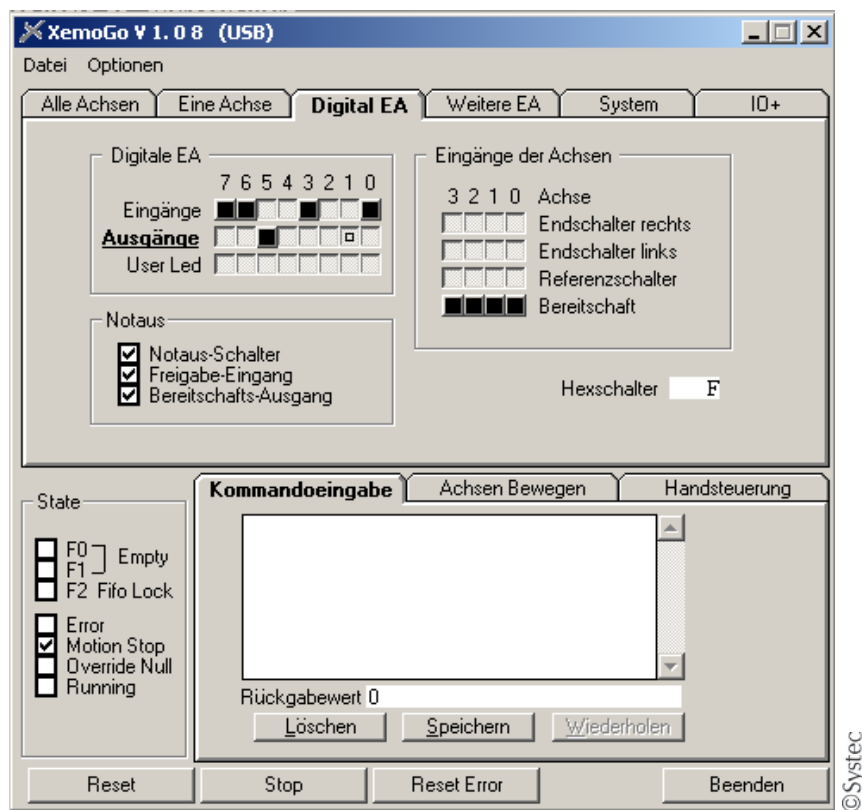


Fig. 26 Example for setting a digital output at output 1

If a short circuit occurs in an activated output, the hardware will deactivate the whole driver block (outputs 0 to 3 or outputs 4 to 7) after approx. 1 sec., another window will open up with an error message.

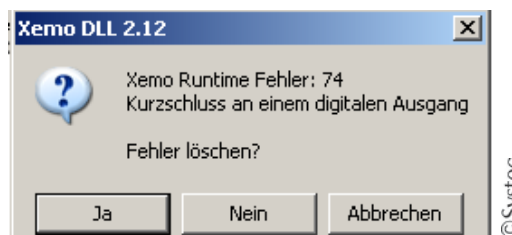


Fig. 27 Error message in case of a short circuit at a digital output

If there is a short circuit, the error [= Fehler] will reappear immediately after acknowledgement so that you cannot fix the error by deactivating the output by mouse click. In this case, you must fix the short circuit in the hardware or quit Xemo!Go and restart it.

**Testing user LEDs**

Similar to the digital outputs, the user LEDs on the devices can be activated or deactivated for check-up in the same way in this mask.

**Remark**

Only the user LEDs 0 to 3 can be controlled with Xemo M controllers in this mask. The digital inputs can indicate any values which are not relevant. The digital outputs can be activated in this mask but there is no function located behind this entry.

## 5.7 Analog inputs and outputs

### 5.7.1 Checking analog inputs

If your Xemo controller has got an integrated analog interface, Xemo!Go helps you to check your signal levels and assists you with your trouble shooting: In the mask “Weitere EA”, you can read and read out the voltages connected to the analog inputs of your controller.

#### NOTICE

Please be aware that the analog inputs are designed only for voltages ranging from 0 - 10 V or 0 - 20 mA. Higher or negative voltages can damage the input.

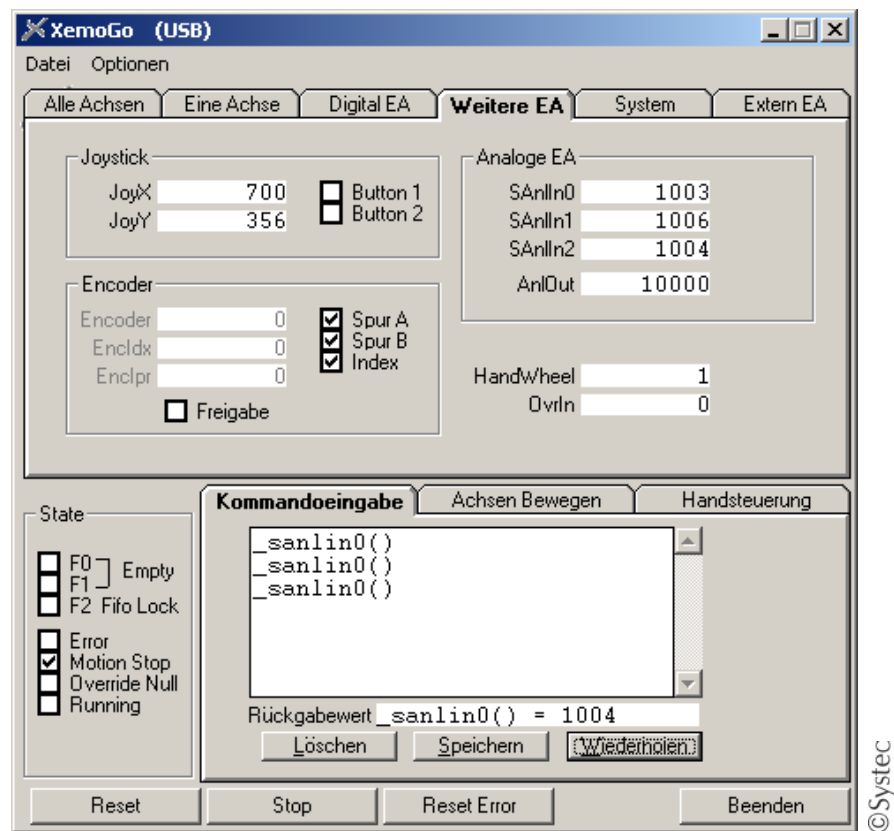


Fig. 28 Mask “Weitere EA” with 10 V voltage at all three analog inputs (the output was bridged to the three inputs).The command entry can also be used to read the voltage applied to the inputs – threefold enquiry of input 0 here.

#### Read voltage

You can read the actual applied value either in the text field “Analoge EA” or you can enter the command `_sanlin0()` analog to the input indicated in the upper text field in order to have the current value provided.

You can find more information on the command `_salin0()` in Chapter 8.4 of the MotionBasic Programming Manual, [SYSTEC717].

**Units** The voltage unit is 1/100 V, 10 V input voltage, for example, is indicated as 1000 as shown in the example in Fig. 28.

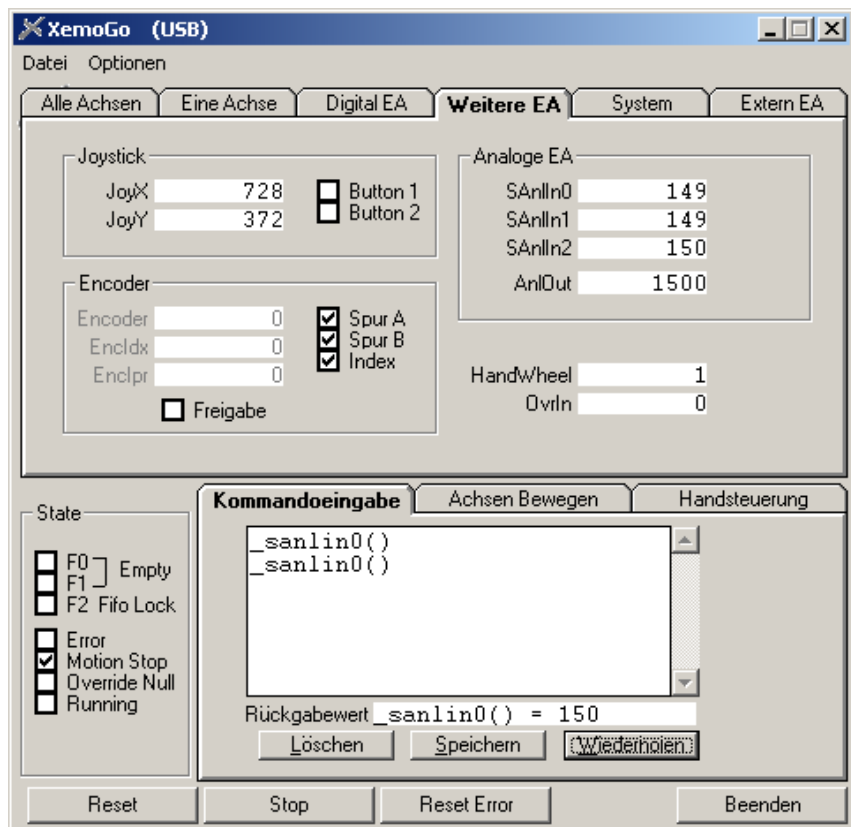
**Unfiltered** The voltages indicated vary because these values come directly and in an unfiltered way from the A/D converter.

### 5.7.2 Displaying analog voltage

Use Xemo!Go to profit from the analog output of your Xemo controller or to simply check the analog output voltage within your trouble shooting procedure.

**Value range** For this purpose, you can use your Xemo controller to display analog voltages ranging from -10 – 10 V.

Select the mask “Weitere EA” in Xemo!Go and enter a value in mV in the field “AnlOut”, i. e. the value 1500 for 1.5 V as shown in the example in Fig. 29, and press the return key to confirm your entry.



**Fig. 29** Mask “Weitere EA” with entry field for analog voltages, here an example with 1.5 V.

### 5.8 Enable and emergency stop input

The inputs important for the enable of the controller are indicated in the mask "Digitale EA". The inputs are in the box "Not-Aus" [= emergency stop].

#### Emergency stop control with Xemo R

If the Not-Halt-Taster [= emergency stop control] is activated on a Xemo R controller, the enable signal is also deactivated internally.



Remark

In Fig. 31, both the enable input and the emergency stop input are shown as deactivated although the enable signal on the plug and socket connector X19 is externally connected to 24V.

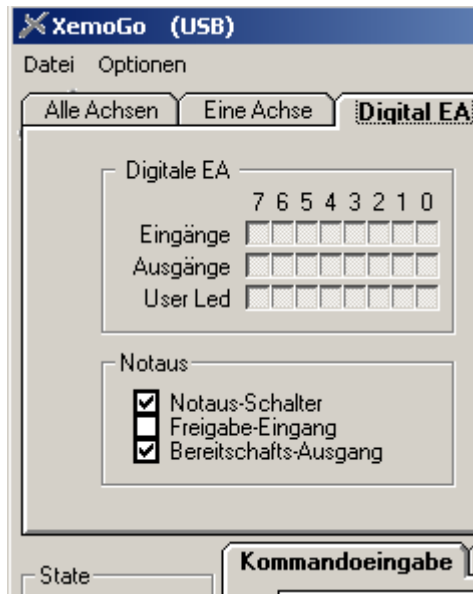


Fig. 30 No enable [= keine Freigabe]

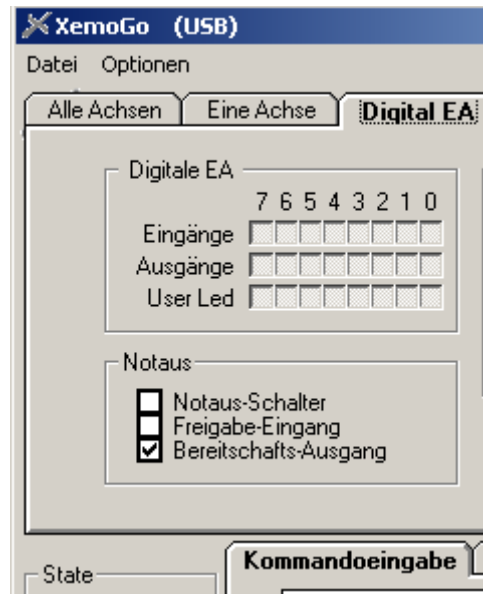


Fig. 31 The emergency stop control is activated.



### 5.9 Ready signal

The status of the ready output is indicated within the mask "Digitale EA". If it is not available due to an error, this will be indicated immediately in the mask.

The ready output, which is connected to port address 12 bit 2, can also be reset or set in the online command entry (see Fig. 32).

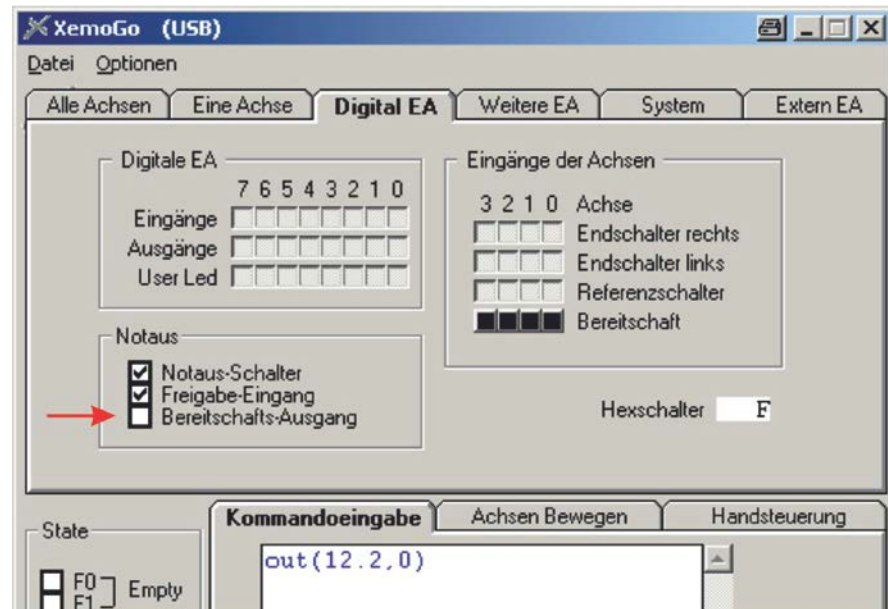


Fig. 32 The online entry of "out(12,0,0)" resets the ready input.

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G.5715.1

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environment  
© Systemec GmbH, Münster 2017

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