

System Configurator System200 17VRS

Application Manual

DOK-CONTRL-SYS*CON*V17-ANW1-EN-P

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Contents

1 General View of the System Configurator	1-1
1.1 Purpose.....	1-1
1.2 Menu Structure and Data Entry.....	1-1
1.3 Installation and Start of the System Configurator	1-2
1.4 Example Scenario.....	1-2
2 Information about the System Configurator	2-1
2.1 Device Type	2-1
2.2 Device / Device Address.....	2-1
2.3 Show Only Free Serial Ports.....	2-1
2.4 Communication Address.....	2-2
2.5 Update of Device Directories	2-2
2.6 Menu File	2-2
3 Available Functions	3-1
3.1 Overview	3-1
3.2 Create a New Device	3-1
New Device, Step 1.....	3-2
New Device, Step 2.....	3-2
New Device, Step 3.....	3-2
New Device, Step 4.....	3-2
New Device, Step 5.....	3-3
3.3 Edit Device	3-4
Edit Device, Step 1.....	3-4
Edit Device, Step 2.....	3-4
Edit Device, Step 3.....	3-5
3.4 Connect Device with MTVNC.....	3-5
3.5 Delete Device.....	3-6
3.6 Cut Device.....	3-6
3.7 Copy Device.....	3-6
3.8 Insert Device	3-6
3.9 Shift Device Up	3-7
3.10 Shift Device Down.....	3-7

1 General View of the System Configurator

1.1 Purpose

The System Configurator is an editor which is used to describe the devices connected to the Control PC. For this the Device Address, the Device Type and the description of the communication path to the device are used. It is the aim to create a 1:1 copy of the device structure connected to the Control PC. This is called System Configuration. The System Configuration is stored on the Control PC.

Furthermore it is possible to assign properties to the devices, for example the connection of a MTC200-P, MTC200-R or MTCNC device to a MTVNC device (virtual MTC) for the creation of a Simulation Pair.

The System Configurator is used by the Function Interface and the User Interface (MUI/GUI) for the organization of the communication with the devices connected to the Control PC.

1.2 Menu Structure and Data Entry

Menu Structure The left side of the screen shows the configured devices in a tree structure. For the device, which is selected in the tree the corresponding data is displayed on the right side of the screen.

Data Entry When entering data e. g. when creating a new device, or when editing an existing device the user will be guided by an assistant. The assistant splits the data entry into several steps.

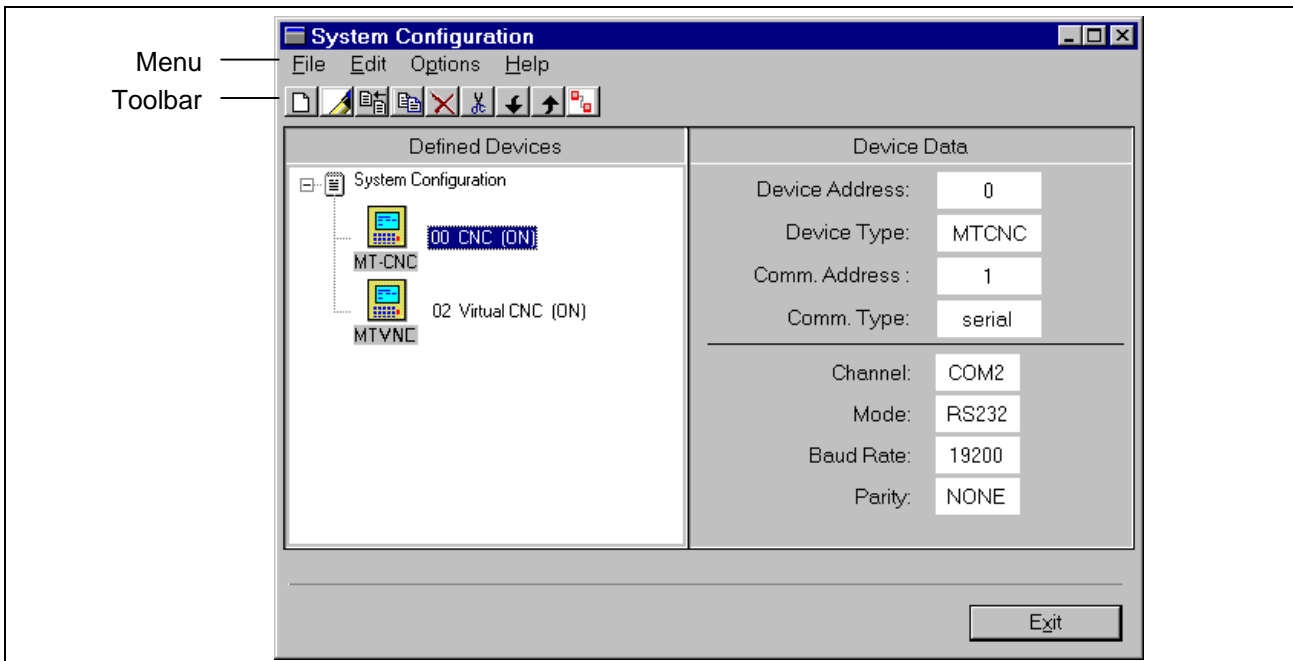


Figure 1-1: System Configurator with 2 devices

1.3 Installation and Start of the System Configurator

The System Configurator is installed when installing the MUI/GUI.

Note: The System Configurator is an independent program and has to be called manually before starting the MUI/GUI. The System Configurator also has to be finished before starting the MUI/GUI.

MUI /GUI version up to 18V01 The System Configurator is started by the batch file SysConNt.bat which exists in the installation drive of the MUI/GUI. If needed a link can be manually created to that batch file.

MUI /GUI version 18V02 and higher The installation program creates a link to the System Configurator. Therefore the System Configurator is started directly, and not by the use of a batch file.

1.4 Example Scenario

Connect a New Device If for example an MT-CNC 02, address 0 selected at the selector switch, is connected via RS232 to COM2 of the Control PC, this configuration has to be entered in the System Configurator. That means a device of the type MTCNC, Device Address 0, with a Communication Address that includes the settings RS232 and COM2 etc..

Modify an existing device If the physical configuration of a device is modified, this modification also has to be entered / updated in the System Configurator. If for example the connection of device 0 to the Control PC is modified from COM2 to COM1, the device 0 has to be edited in the System Configurator. This means COM1 has to be selected instead of COM2 as the Channel in the corresponding Communication Address.

2 Information about the System Configurator

2.1 Device Type

The Device Types available in the current installation of the System Configuration are shown in the selection box "Device Type" in the first step of the function "New Device" (see New Device, Step 1).

The following table of Device Types is an example:

Device Type	Description
MTVNC	Virtual MTC
MTCNC	MT-CNC 02 / 03
MTC200-P	MTC with SPS PC variant
MTC200-R	MTC with SPS PECO variant
ISP200-P	Standalone-SPS PC variant
ISP200-R	Standalone-SPS RECO variant

Figure 2-2: Device Types

Note: The Device Type MTC200 used up to MUI/GUI version 17 is replaced by the Device Type MTC200-P in MUI/GUI version 18. The Device Type MTC200 is compatible with MTC200-P.

2.2 Device / Device Address

The term device stands for a control hardware, a drive device or an I/O device.

The Device Address entered in the System Configurator corresponds to the Device Address inside the MUI/GUI.

The range for the Device Address is 0 to 15. Note that the MUI/GUI always needs a Device 0 .

2.3 Show Only Free Serial Ports

A check of the free serial ports is done. Occupied serial ports (e. g. mouse) will not be offered for editing Communication Addresses in the System Configurator.

The check can be disabled (Menu Options, Entry Show only free COM ports).

2.4 Communication Address

The Communication Address is a data set which describes the way of communication to the device. The Communication Address has a symbolic identifier which consists of the fix part CommAddr and a number, e. g. CommAddr2. Up to 8 Communication Addresses can be created (CommAddr1 to CommAddr8).

Note: Create no more Communication Addresses than necessary for the configured devices.

2.5 Update of Device Directories

When saving the system configuration data, an update of the device directories will be executed if necessary. The update of the device directories will only be executed if devices have been deleted or new devices have been added.

Note: If the active device in the MUI/GUI is deleted, device 0 will be selected as the active device.
Information is given via MSG-BOX.

2.6 Menu File

The Menu File offers the menu items Save and Exit.

Save This function saves the system configuration (also refer to 'Update of Device Directories').

Exit If modifications have been made, you will be asked by a MSG-BOX whether to save and exit or exit without saving.

3 Available Functions

3.1 Overview

The Content of the functions Create a New Device, Edit Device and Insert Device depends on the Device Type. The following tables provide a short overview:

New Device	MTCNC, MTC200-P, MTC200-R	MTVNC	ISP200-P, ISP200-R
Step 1	Select Device Type	Select Device Type	Select Device Type
Step 2	Select Device Address	Select Device Address	Select Device Address
Step 3	Enter Device Name and Device Status	Enter Device Name and Device Status	Enter Device Name and Device Status
Step 4	Edit Communication Address	Configuration of the MTVNC (Start Mode, Memory Size)	Edit Communication Address
Step 5	Connect with MTVNC	---	---

Figure 3-3: Steps for New Device

Edit Device	MTCNC, MTC200-P, MTC200-R	MTVNC	ISP200-P, ISP200-R
Step 1	Enter Device Name and Device Status	Enter Device Name and Device Status	Enter Device Name and Device Status
Step 2	Edit Communication Address	Configuration of the MTVNC (Start Mode, Memory Size)	Edit Communication Address
Step 3	Connect with MTVNC	---	---

Figure 3-4: Steps for Edit Device

Insert Device	MTCNC, MTC200-P, MTC200-R	MTVNC	ISP200-P, ISP200-R
Step 1	Select Device Address	Select Device Address	Select Device Address
Step 2	Enter Device Name and Device Status	Enter Device Name and Device Status	Enter Device Name and Device Status
Step 3	Edit Communication Address	Configuration of the MTVNC (Start Mode, Memory Size)	Edit Communication Address
Step 4	Connect with MTVNC	---	---

Figure 3-5: Steps for Insert Device

3.2 Create a New Device

The function can be called in the Edit Menu, via the menu item New Device, or via the toolbar button for New Device. The new device is inserted ahead of the device currently marked in the tree.

When entering data the user will be guided by an assistant. The assistant splits the data entry into several steps. The creation of a new device will be finished using the button Finish in the last Step.

New Device, Step 1

The Device Type is selected in this step.

The Device Type has to correspond to the device connected to the Control PC.

Note: The Device Type cannot be changed after it has been created.

New Device, Step 2

The Device Address is selected in this step.

If the device is connected to the Control PC by a serial connection and has a selector switch, the Device Address has to correspond to the address selected at the device by the selector switch.

Note: The Device Address has to be unambiguous.

Note: The Device Type cannot be changed after it has been created.

New Device, Step 3

The Device Name is entered and the Device State is selected. The device name may include up to 32 characters and should not include special characters.

Note: Set the Device Status to ON if the device exists and is ready, else to OFF.

New Device, Step 4

Devices except MTVNC

A Communication Address is assigned to the device. First a Communication Address has to be selected in the selection box 'Comm. Address'.

In the selection box only Communication Addresses will be offered which correspond to the Device Type of the currently edited device, and which have not yet been used by other devices. Exceptions are devices which are connected by a serial port. Please see the note below.

If no Communication Address exists yet, it has to be created by using the entry New in the selection box, or via the toolbar button New Communication Address.

The data of the Communication Address depends on the Device Type and is displayed in the corresponding entry fields. The data has to correspond to the device settings. For further information on the devices please refer to the Technical Documentation of the device.

Note: If devices are connected to the Control PC by a serial connection, it is possible that several devices use the same communication path (the same Communication Address) e.g. when using the RS485 protocol. The devices are addressed by the Device Address selected via the selector switch.

MTVNC For devices of the type MTVNC the configuration of the MTVNC is done in this step.

The Start Mode is selectable:

- ON: The MTVNC is started when starting the MUI/GUI.
- OFF: The MTVNC is not started.

Note: If Device State is ON, the Start Mode of the device is automatically set to ON. The Start Mode of the MTVNC can only be modified if the Device State is OFF.

The Memory of the PC, used by the MTVNC can be modified (from MUI/GUI version 18V01 up):

- Default: 512KB
- Range: 256KB up to 16383KB in steps of 1 KB

The button "Advanced" provides the access to the entry "options" modified (from MUI/GUI version 18V01 up). The options are not needed under normal use.

Note: For the entry Options, data may only be entered according to prior agreement with Indramat personal. Normally no data is entered!

New Device, Step 5

**Device of the type MTCNC,
MTC200-P, MTC200-P**

Devices of the type MTC200-P, MTC200-R or MTCNC can be connected to a device of the type MTVNC (Virtual MTC). In this way a Simulation Pair is created, also refer to the documentation MTC200/MT-CNC NC-Simulation.

- In order to connect a MTVNC, select a Device from the selection box 'Connected MTVNC'. The selection box shows only Devices of the type MTVNC, that are not yet connected. A connected MTVNC is indented to the right in the tree 'System Configuration'.
- An existing connection can be changed by selecting another Device of the type MTVNC, or can be removed by selecting 'NONE'.

Note: If there is no device of the type MTVNC available for the connection, the device currently created has to be finished without connection to a MTVNC. Then create a new device of the type MTVNC. This device will then be available for connection (refer to 'Connect Device with MTVNC').

3.3 Edit Device

The device to be edited has to be selected in the 'System Configuration' tree.

By RETURN or DOUBLECLICK on the selected device or via the Edit Menu, entry Edit Device as well as via the toolbar button for Edit Device, the editing of the device can be started.

The user will be guided by an assistant. The assistant splits the data entry into several steps. The function Edit Device will be finished using the button Finish in the last Step.

Note: The Device Address as well as the Device Type cannot be changed.

Edit Device, Step 1

The Device Name is entered and the Device State is selected. The device name may include up to 32 characters and should not include special characters.

Note: Set the Device Status to ON if the device exists and is ready, else to OFF.

Edit Device, Step 2

Devices except MTVNC

The Communication Address data can be modified and also a new Communication Address can be created. Furthermore the Communication Address currently assigned to a device can be changed.

The Communication Address selected in the selection box 'Comm. Address' is assigned to the device.

In the selection box only Communication Addresses will be offered which correspond to the Device Type of the currently edited device and which have not yet been used by other devices. Exceptions are devices which are connected by a serial port. Please see also the note below.

The data of the Communication Address depends on the Device Type and is displayed in the corresponding entry fields. The data has to correspond to the device settings. For further information on the devices please refer to the Technical Documentation of the device.

Note: If devices are connected to the Control PC by a serial connection, it is possible that several devices use the same communication path (the same Communication Address) e.g. when using the RS485 protocol. The devices are addressed by the Device Address selected via the selector switch.

MTVNC

For devices of the type MTVNC the configuration of the MTVNC is done in this step.

The Start Modes is selectable:

- ON: The MTVNC is started when starting the MUI/GUI.
- OFF: The MTVNC is not started.

Note: If Device State is ON, the Start Mode of the device is automatically set to ON. The Start Mode of the MTVNC can only be modified if the Device State is OFF.

The Memory of the PC, used by the MTVNC can be modified (from MUI/GUI version 18V01 up):

- Default: 512KB
- Range: 256KB up to 16383KB in steps of 1 KB

The button "Advanced" provides the access to the entry "options" (from MUI/GUI version 18V01 up). The options are not needed under normal use.

Note: For the entry Options, data may only be entered according to prior agreement with Indramat personal. Normally no data is entered!

Edit Device, Step 3

**Devices of the type MTCNC,
MTC200-P, MTC200-R**

Devices of the type MTC200-P, MTC200-R or MTCNC can be connected to a device of the type MTVNC (Virtual MTC). In this way a Simulation Pair is created, also refer to the documentation MTC200/MT-CNC NC-Simulation.

- In order to connect a MTVNC, select a Device from the selection box 'Connected MTVNC'. The selection box shows only Devices of the type MTVNC, that are not yet connected. A connected MTVNC is indented to the right in the tree 'System Configuration'.
- An existing connection can be changed by selecting another Device of the type MTVNC or can be removed by selecting 'NONE'.

Note: If there is no device of the type MTVNC available for the connection, the device currently edited has to be finished without connection to a MTVNC. Then create a new device of the type MTVNC. This device will then be available for connection (refer to 'Connect Device with MTVNC').

3.4 Connect Device with MTVNC

**Devices of the type MTCNC,
MTC200-P, MTC200-R**

The device for which a connection to a MTVNC is to be created or edited, has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Connect Device with MTVNC or via the toolbar button for Connect Device with MTVNC the last step of the function Edit Device will be called directly (please refer to 'Edit Device, Step 3').

3.5 Delete Device

The device which is to be deleted has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Delete Device or via the toolbar button for Delete Device, as well as via the Delete key of the keyboard the selected device is deleted. A confirmation prompt appears.

Note: When deleting a device, also the data in the device directories will be deleted.

3.6 Cut Device

The device which is to be cut has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Cut Device or via the toolbar button for Cut Device the selected device will be deleted, (also refer to 'Delete Device') and copied into a temporary buffer. Then a confirmation prompt appears.

For inserting the device refer to 'Insert Device'.

Note: When cutting a device, the data in the device directories will be deleted.

3.7 Copy Device

The device which is to be copied has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Copy Device or via the toolbar button for Copy Device the selected device will be copied into a temporary buffer.

For inserting the device, refer to 'Insert Device'.

3.8 Insert Device

If a device is saved in the temporary buffer, it can be inserted via the function Paste Device. The device will be inserted ahead of the device currently selected in the tree 'System Configuration' (also refer to 'Copy Device' and 'Cut Device').

The function Insert Device is available via the Edit Menu, entry Insert Device or via the toolbar button for Insert Device.

When inserting a device the user has to enter a Device Address. Other settings can be modified if needed. The user will be guided by an assistant. The following steps are executed:

- In Step 1 the Device Address has to be assigned (refer to 'New Device, Step 1').

From Step 2 on, the Steps as known from the function Edit Device are used

- In Step 2 the Device Name and the Device State can be edited (refer to 'Edit Device, Step 1').
- In Step 3 the Communication Address or the configuration of a MTVNC can be edited (refer to 'Edit Device, Step 2').
- In Step 4 a connection with a MTVNC can be established (refer to 'Edit Device, Step 3').

Note: Copy / Cut / Insert includes the System Configuration data of the device (Device Type etc.). It does not include data like NC-programs, message texts etc. which are located in the device directories.

3.9 Shift Device Up

The device which is to be shifted has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Shift Device Up or via the toolbar button for Shift Device Up, the selected device is shifted one entry up in the tree.

3.10 Shift Device Down

The device which is to be shifted has to be selected in the tree 'System Configuration'.

Via the Edit Menu, entry Shift Device Down or via the toolbar button for Shift Device Down, the selected device is shifted one entry down in the tree.

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Außerhalb Europa / USA - outside Europe / USA

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Notes

