

# MTC200/MT-CNC Multi Control Interface MCI 18VRS

Application Manual

DOK-MTC200-GBO\*MCI\*V18-ANW1-EN-P

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<b>Purpose of the documentation</b>	This documentation provides an overview of using the MCI (Multi-Control Interface) and also describes configuring the MCI.

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# 1 Overview

## 1.1 Application tasks

The MCI software (Multi-Control Interface) is used for interdevice diagnostics within the MTC200 series of controllers. It has been designed to be clear and uncomplicated to use and provides the user with active fault messages, status information and, if so desired, with important controller data for all of the processes of the various devices in a complex machine arrangement or system.

From this diagnostics platform it is simple to switch to the user interface (GUI) of the individual processes (stations). The processes may be associated with different devices.

## 1.2 Example: machine system

The MCI software allows you to monitor multiple controllers on a visualization device (for example, a BTV30).

In the following example the BTV30 includes two MTC200-P devices. This device type is the PC version of an MTC with PLC.

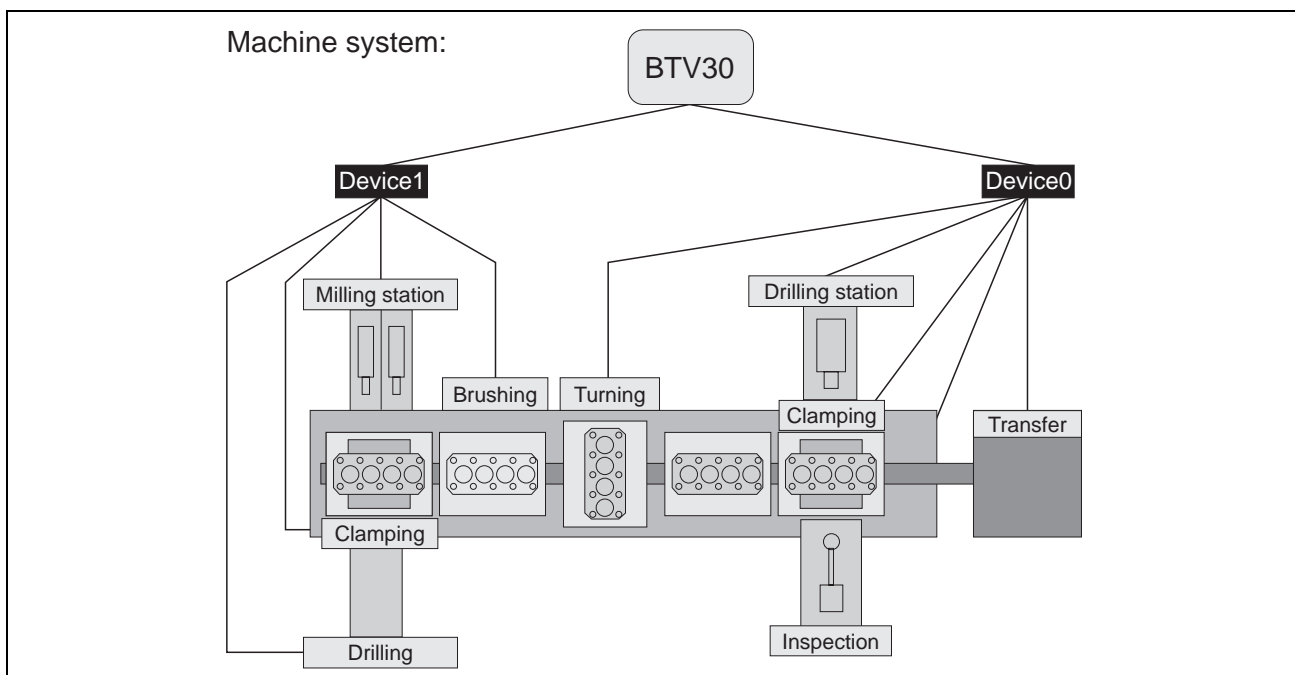


Fig. 1-1: Example of a machine system

## 1.3 System configurator

The system configurator (see description DOK-SYS\*CON\*V17-ANW1-EN-P, Mat.Nr. 280904) informs the controller PC in the BTV30 which devices are connected. It is to be launched on the Windows NT 4.0 level (the batch file 'sysconnt.bat' starts the system configurator 'syscon.exe'):

Launching the system configurator

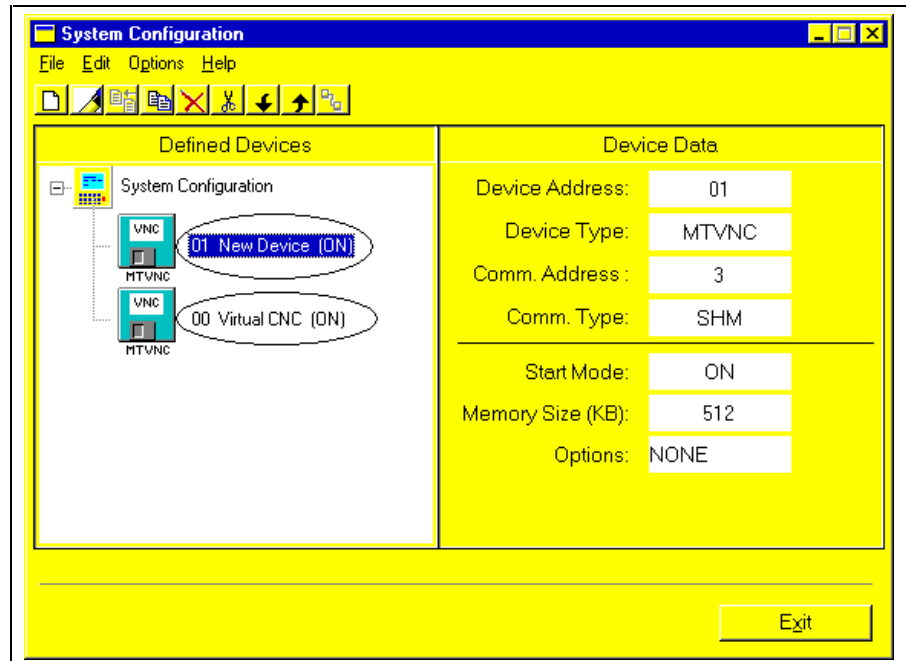
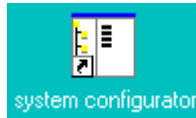


Fig. 1-2: Definition of the connected devices

For this example two virtual MTVNCs have been configured.

# 1.4 Machine parameters

To complete configuration of the 'Machine system' example, the machine parameters must be defined (Fig. 1-3 shows only the designations of the processes and the external mechanisms):

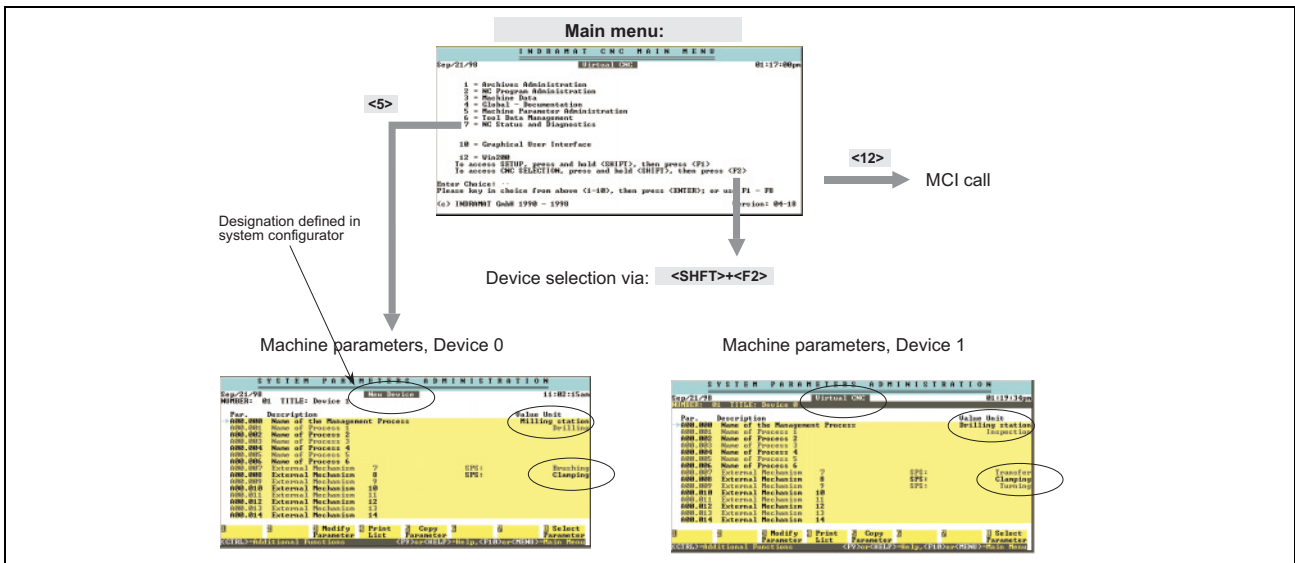


Fig. 1-3: Definition of the machine parameters





## 2 MCI configuration

### 2.1 Launching the MCI

**Starting from the main menu** The MCI can be launched from the main menu of the MUI (see Fig. 1-3) by selecting 'Menu item 12'. You should key in <12> <Enter>.

**Starting from the GUI** The MCI can be launched from the GUI. For this to be possible the F-key function Fct.70 which starts the MCI call should be assigned to an unused soft key (see DOK-MTC200-GBO\*GEN\*V17-ANW1-EN-P). In the example the function call for Fct.70 has been assigned to F-key level 10 (see Fig. 2-4):

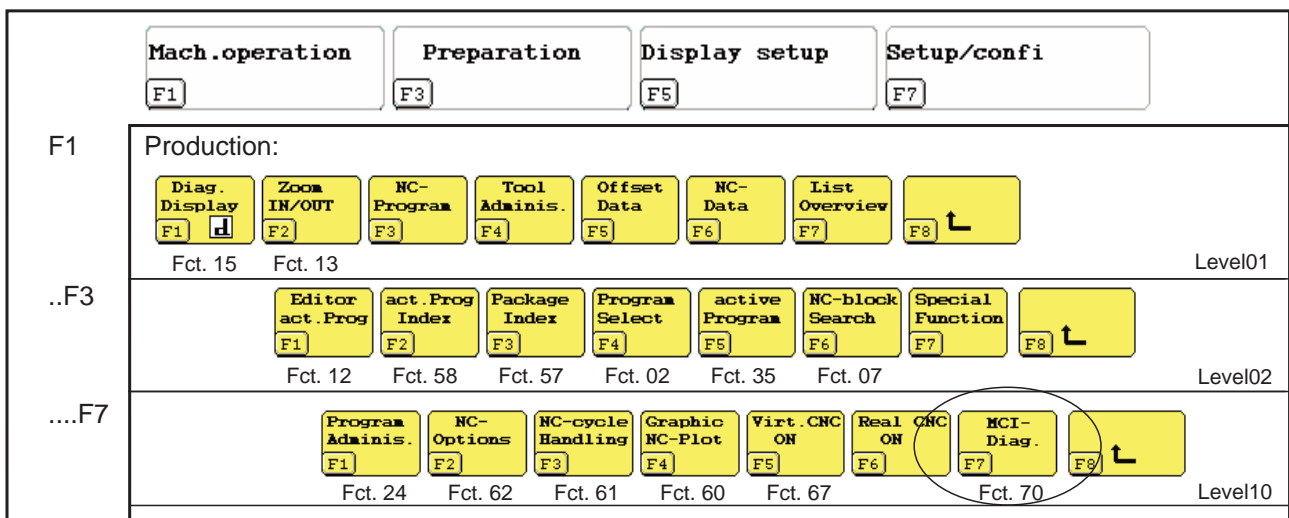


Fig. 2-4: Extract from the default F key assignments

The Fct.70 function does not call the MCI directly but jumps back to the program from which the GUI (either MUI or MCI) was called.

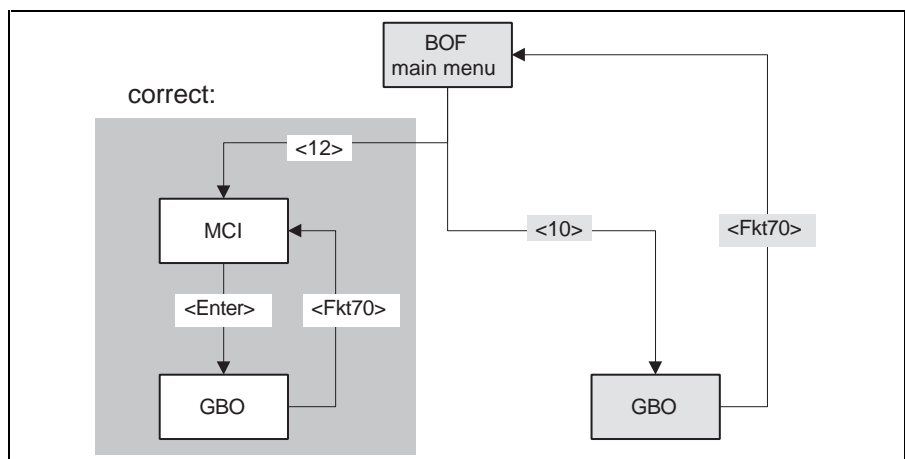


Abb. 2-5: Switch-on sequence

To make direct switching between MCI and GUI possible, the MTC200, after switching on, must start directly into the MCI.

Starting MCI diagnostics



Fig. 2-6: "Empty" MCI window

MCI diagnostics must be configured for display:

- Selection of stations to be displayed: Sequence of stations
- Specifying the content to be displayed: Content of stations

## 2.2 Station selection (F4)

First of all you must select the stations whose data are to be displayed.

Selection of stations:

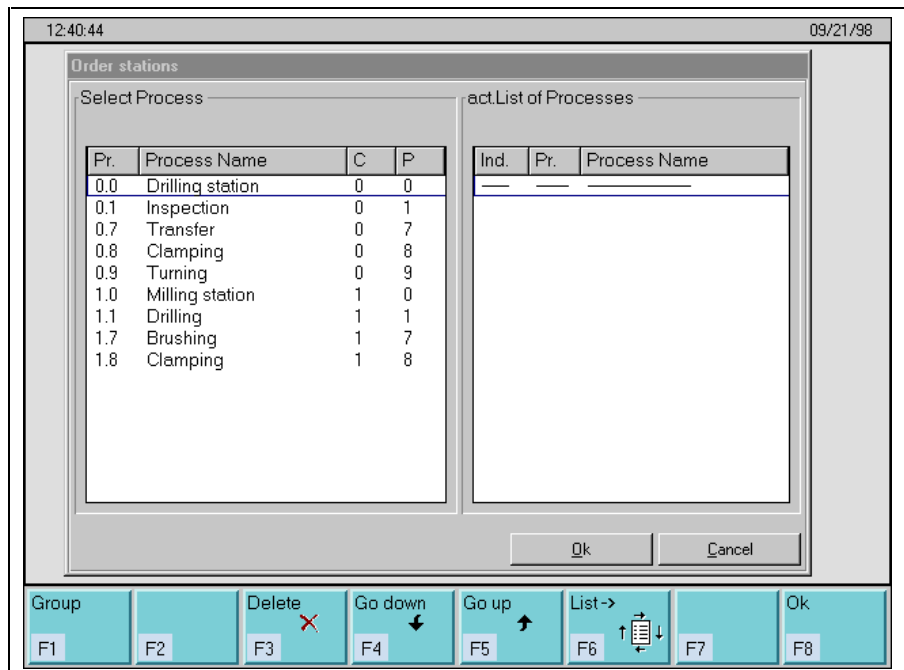


Fig. 2-7: Station selection

The left-hand list shows all of the stations which have been specified in the machine parameters. This list cannot be edited.

The stations which you want to appear in MCI Diagnostics must be copied to the right-hand list.

In the right-hand list (current display list) the entries can be moved and deleted. The "Group" function creates groups of stations which permit faster 'scrolling' through the MCI window.

The left-hand list has the focus (the list enclosed in the frame):

### Controls **<F2> Copy**

The selected station of the left-hand list is copied to the right-hand list.

### **<F6> Set focus (⇒<Tab> key)**

The object with the focus can be manipulated with other keys (for example, <Cursor> keys). It is given special emphasis (frame, marking, or similar). The present window includes the focussable objects, the left-hand and right-hand lists, and the OK and Abort buttons. Press <F6> to move between the objects.

The right-hand list has the focus (the list enclosed in the frame):

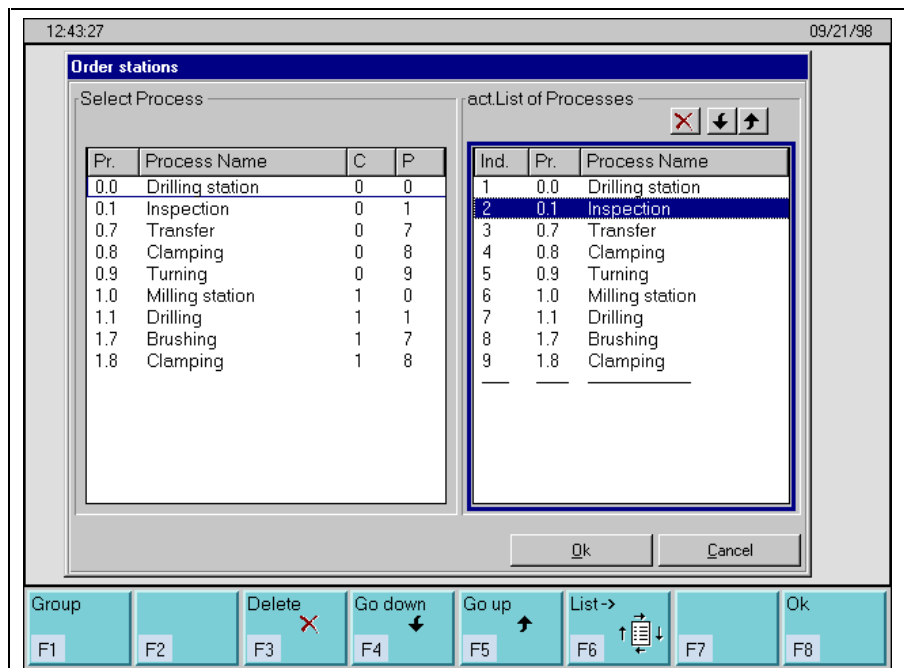


Fig. 2-8: List of the current display

The current list includes the stations whose data are displayed in the MCI window. This list can be edited:

### **<F1> Group**

A hyphen is inserted above the marking. Display groups are created. These make faster scrolling possible in the MCI window with the <PgDown> and <PgUp> keys.

### **<F3> Delete**

The selected station is deleted

### **<F4> Move downwards**

The selected station is moved downwards

### **<F5> Move upwards**

The selected station is moved upwards

### **<F8> OK (save entries)**

The current display list is saved.

## 2.3 Contents of the station display (F5)

Once all stations (in the example) have been added to the display list and their sequence defined the following MCI window appears. Since no display data have been entered yet, you will see only the headers for the stations:

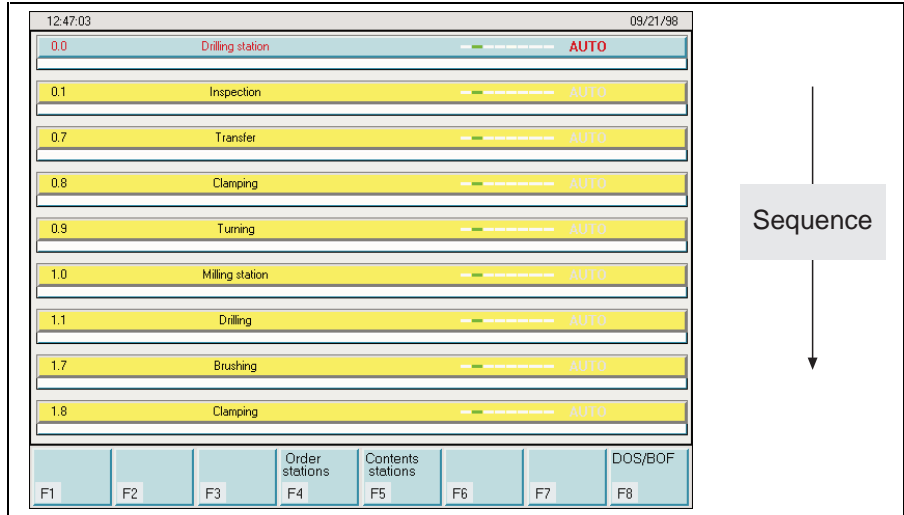


Fig. 2-9: Headers in the MCI window

The next step is to select the data which are to appear in the headers and station displays:

### Selection of the display data

Contents stations  
F5

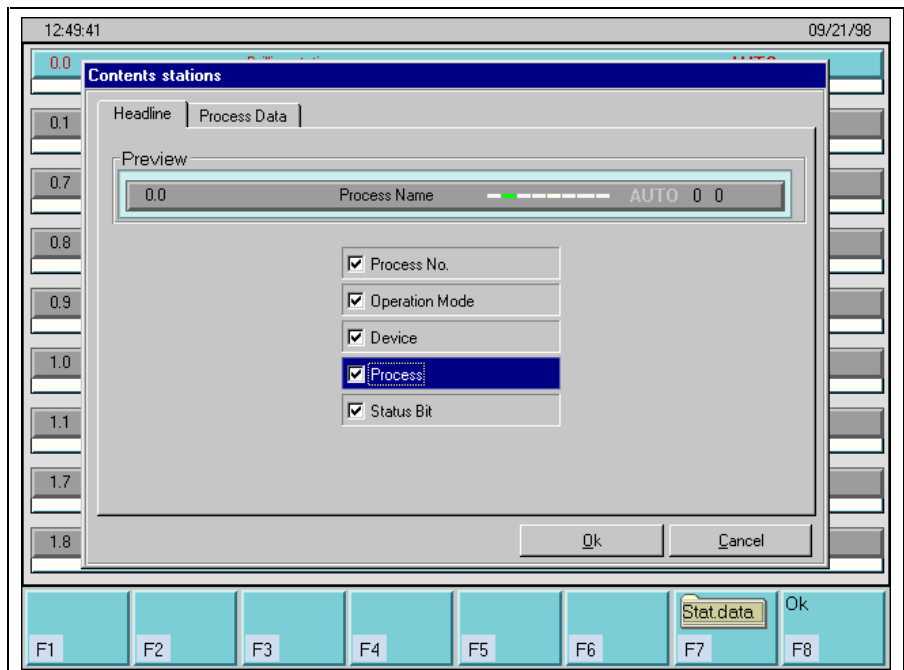


Fig. 2-10: Specifying the headers

### Contents of the headers

The setting you specify for the contents of the headers applies to all stations. The preview window shows the current setting. The following data can appear in the headers:

- Station number
- Station designation
- Operating mode
- System

- Process
- Station status bit

### Controls <Tab> Set focus

The object with the focus can be manipulated with other keys (for example, <Cursor> keys). It is given special emphasis (frame, marking, or similar). Use <Tab> to move the focus. Focussable objects are the selection of "headers" or "station data", the "OK" or "Abort" button and the list of displayable data.

### <Cursor>

With the cursor keys you can select within the object with the focus.

### <Space>

With the <Space> key the data with the focus for the display is activated or deactivated.

### <F7>

Switching between the displays "Header " or "Station data"

### Contents of the station display

The station data to be displayed are selected in the following menu:

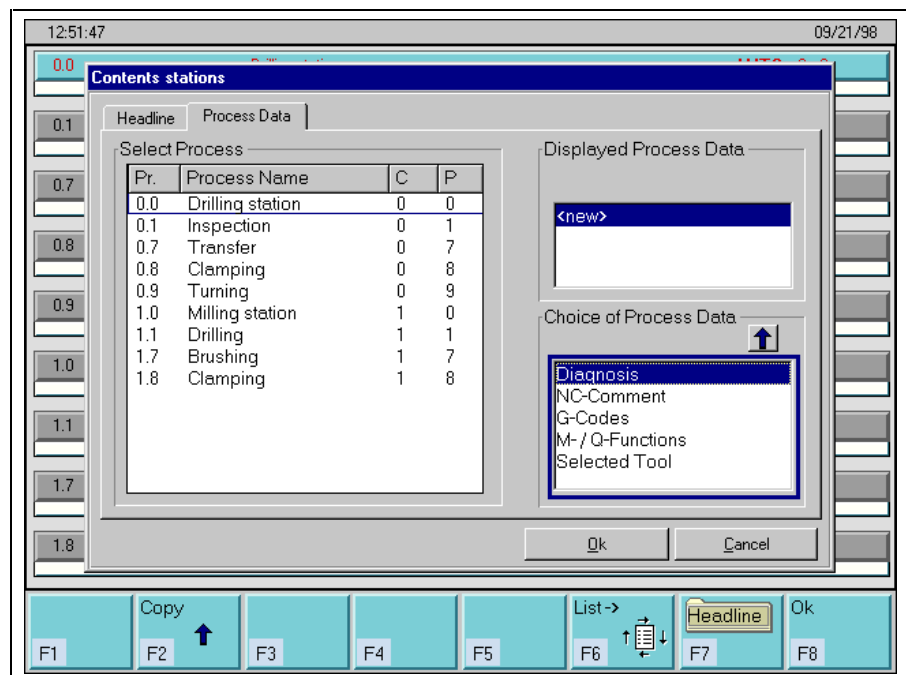


Fig. 2-11: Setting the station display

The station display can include the following data:

- Diagnostics data
- NC information
- G code
- M and Q functions
- Current tool

Definition of the contents of the display is supported by three lists:

#### "Selection of station" list

All existing stations are displayed, the selected station counts as a default (the list can only be changed in the machine data)

**"Contents of station" list**

Displays the current contents of the station display (the sequence and contents can be changed)

**"Selection of contents" list**

List of possible displayable data (list cannot be changed)

**Controls <F1> Modify contents**

The "Selection of contents" list is displayed and is given the focus

**<F2> Set focus (⇒ <Tab> key)**

The object with the focus can be manipulated with other keys (for example, <Cursor> keys). It is given special emphasis (frame, marking, or similar). In the present window the focussable objects are the three lists, the OK and Abort buttons and the "Header" and "Station data" display selection. With <F6> you can switch between the objects.

**<F7> Header or Station data**

With this key you can switch between the "Header" and "Station data" display windows.

**<Cursor>**

With the cursor keys you can select within the focus range.

Depending on the position of the focus the following key assignments apply:

**<F2> Copy (focus "Selection of contents")**

The marked date is copied to the "Contents of station" list

**<F3> Delete (focus "Contents of station")**

The selected date is deleted

**<F4> Down (focus "Contents of station")**

The marked date is moved downwards

**<F5> Up (focus "Contents of station")**

The marked date is moved upwards

Example of a station display

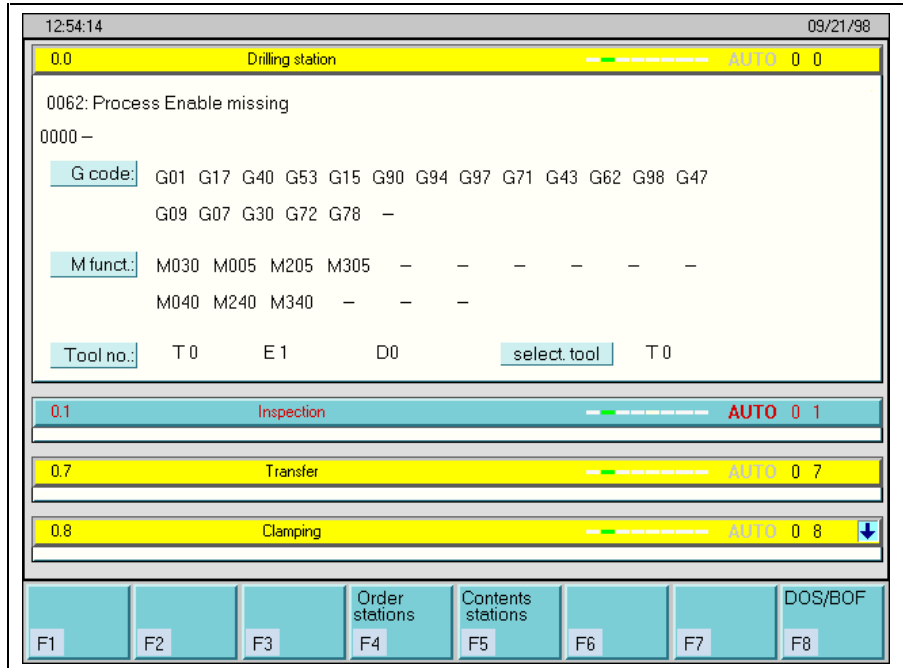


Fig. 2-12: Example of a station display

In the example all drilling station data are activated for the MCI display.





### 3 Operating several devices

The BTV30 has two devices, each consisting of NC and PLC modules. The MCI software makes it a simple matter to switch between the two devices for visualisation and operation.

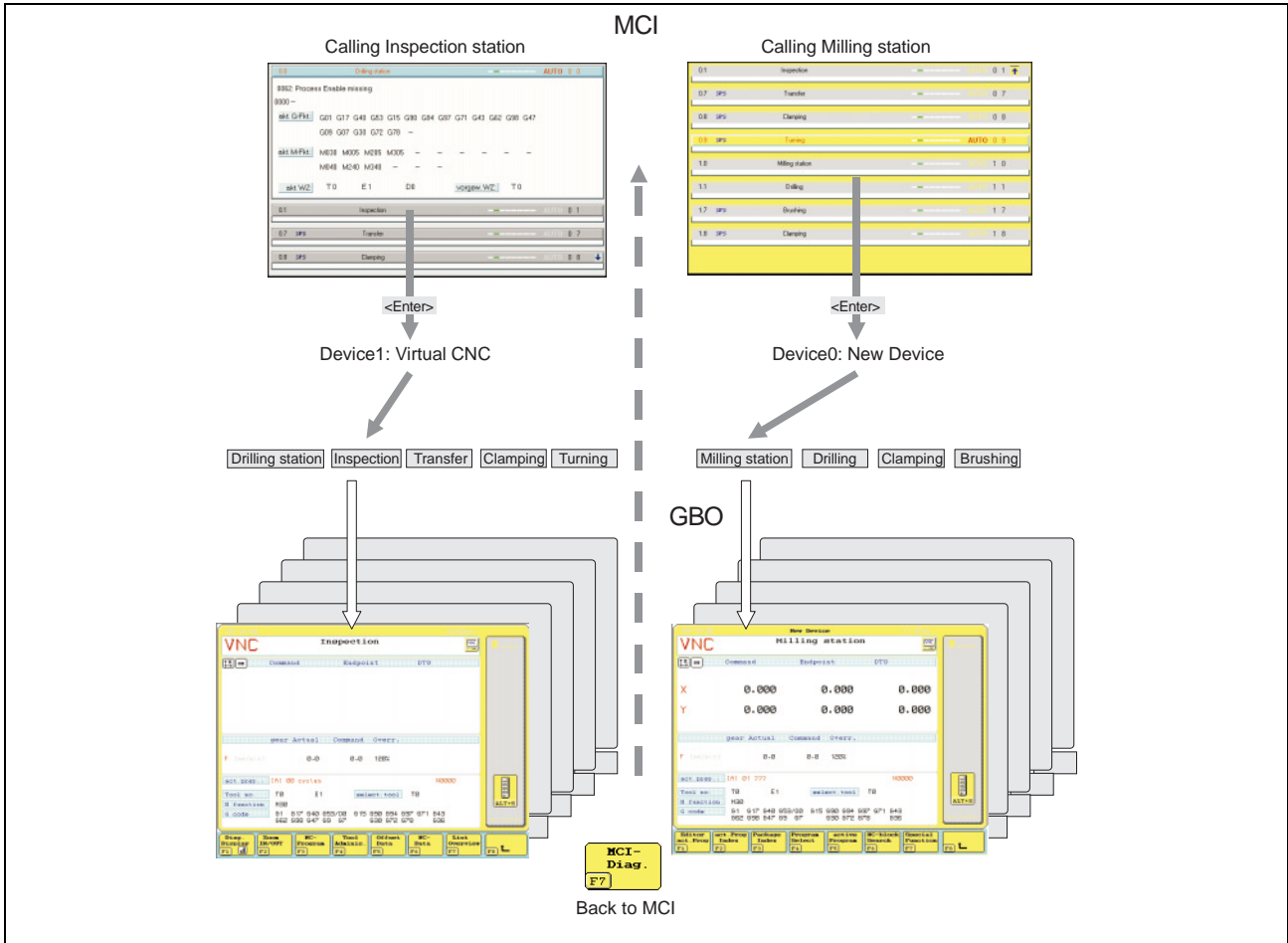


Fig. 3-13: Example of device switching via MCI



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<p>Indonesia <input checked="" type="checkbox"/> V/S <input type="checkbox"/> Service</p> <p>PT. Rexroth Wijayakusuma Jl. Raya Bekasi Km 21 Pulogadung RI - Jakarta Timur 13920</p> <p>Telefon: +62 21/4 61 04 87 +62 21/4 61 04 88 Telefax: +62 21/4 60 01 52</p>	<p>Japan <input checked="" type="checkbox"/> V/S <input checked="" type="checkbox"/> Service</p> <p>Rexroth Automation Co., Ltd. INDRAMAT Division 1F, I.R. Building Nakamachidai 4-26-44 Tsuzuki-ku, Yokohama-shi J - Kanagawa-ken 224-004</p> <p>Telefon: +81 459/42-72 10 Telefax: +81 459/42-03 41</p>	<p>Korea <input checked="" type="checkbox"/> V/S <input checked="" type="checkbox"/> Service</p> <p>Mannesmann Rexroth-Seki Co Ltd. 1500-12 Da-Dae-Dong ROK - Saha-Ku, Pusan, 604-050</p> <p>Telefon: +82 (0)51/2 60 06 18 Telefax: +82 (0)51/2 60 06 19</p>	<p>Korea <input checked="" type="checkbox"/> V/S <input checked="" type="checkbox"/> Service</p> <p>Seo Chang Corporation Ltd. Room 903, Jail Building 44-35 Yeouido-Dong Yeoungdeungpo-Ku C.P.O.Box 97 56 ROK - Seoul</p> <p>Telefon: +82 (0)2/7 80 82 08 +82 (0)2/7 80 82 09 Telefax: +82 (0)2/7 84 54 08</p>
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Service agencies outside Europe

## Outside Europe / USA

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Service agencies outside Europe / USA



## Notes

