

5. DSP Function Control Software RM330-551

5.1 Quick Start Guide ACC.EXE

5.1.1 Connecting RM3200 to your PC

 acc.exe

.The default serial connection of RM3200 to the personal computer is COM2 (RS232 standard). You can change this to COM1 by starting ACC . EXE and selecting the menu Configuration | COM 1/2. This setting is shared with the RM3200 DEFINITION . EXE. You can only use one of the two programs ACC . EXE or DEFINITION . EXE at the same time.

5.1.2 Using ACC.EXE

1. Controlling the active channel with the ACC buttons of the fader modules:

Start ACC . EXE. Click on Show and an empty frame appears with the words Press Access Button! in it. Press the ACC button of the fader channel that you want to access. Now all the processing devices configured in this channel are visible on the screen in the order of the signal flow beginning with the preamplifier.

On the right, the actual frequency response and dynamic graph are displayed. The name of the activated channel is displayed in the lower right corner of the window. You can simply change all settings by clicking with the left mouse button on one of the potentiometer style controls and moving the mouse left/right.

All actions are transmitted simultaneously to the RM3200 and become directly active. In the opposite direction all settings made on the RM3200 main module are monitored in ACC . EXE. In this case the frequency and dynamic response graphs are a visual help for your actions.

2. Accessing hidden channels:

In mode one you can only access channels which are routed to a fader. To change the parameters of the other processing channels, for instance *Fixed Processings*, it is necessary to load a RM3200 configuration file.

First start ACC . EXE. Use File | Open to load the * . MPJ file you want to access from disk which is also stored in the RM32000. On the left side of the window appears a selection tree. Browse the selection tree by clicking on either the *Inputs* or *Fixed Processing* node. Then click on a channel and in the right window a preview of the available devices is visible. Click the Show button to get access to the selected channel.

The Rack style window opens as discribed in (1.). If the channel is a *Fixed Processing*, instead of the channel name the button Save Fixed Processing Channel appears. Pressing this button enables the RM3200 to restore your edits after power off or reset. The * . MPJ file is not modified in any case. The configuration of the RM3200 remains unchanged. After closing the Rack style window (x-button or ESC) the Start window is activated again.

6. Router Control Software RM330-551

This document describes the configuration and use of the RM3200D-routing software with revision level 4.10.00.

6.1 Overview

The RM3200D digital audio console has been designed for mixing and controlling audio signals so it has already the ability to route audio sources to outputs. This routing software offers you an easy way to manage and watch the routing functions.

You can run this software from more than one PC at the same time. The PCs can be connected by serial line or network. By using serial line, each PC must be connected to one of the serial line connectors (9-pin sub D) at the DSP-frame or one of the other modules linked to the frame.

System requirements for connected PCs:

- Pentium 166 or higher (matrix mode causes very high CPU usage!)
- At least 32MB memory
- MS Windows 95/98/NT as operating system
- Serial connector (COM1.. 4) that supports 38.400 Baud
- Optional: network adapter that supports TCP/IP, 10 or 100MBps, usable with Ethernet/Serial line converter

While using more than one PC, you can define access rights by making only the used inputs at a workstation available (see chapter 3, configuring I/Os).

Each command or request command sent by one of the PCs results in an answer from the DSP that is received by every connected PC. This way, all PCs show the same routing state.

6.2 The Main Windows

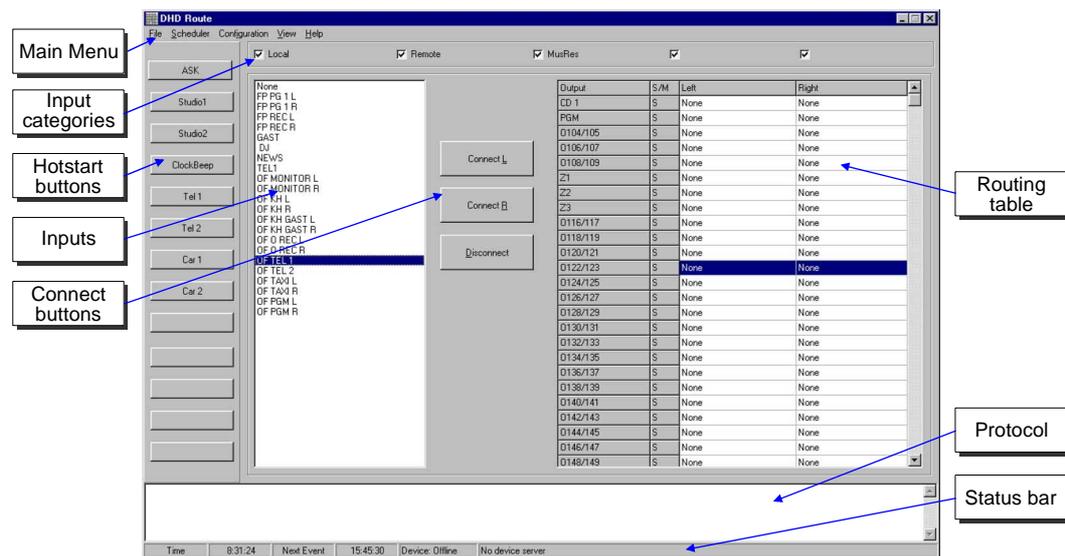


Figure 144: Main window in Routing table view

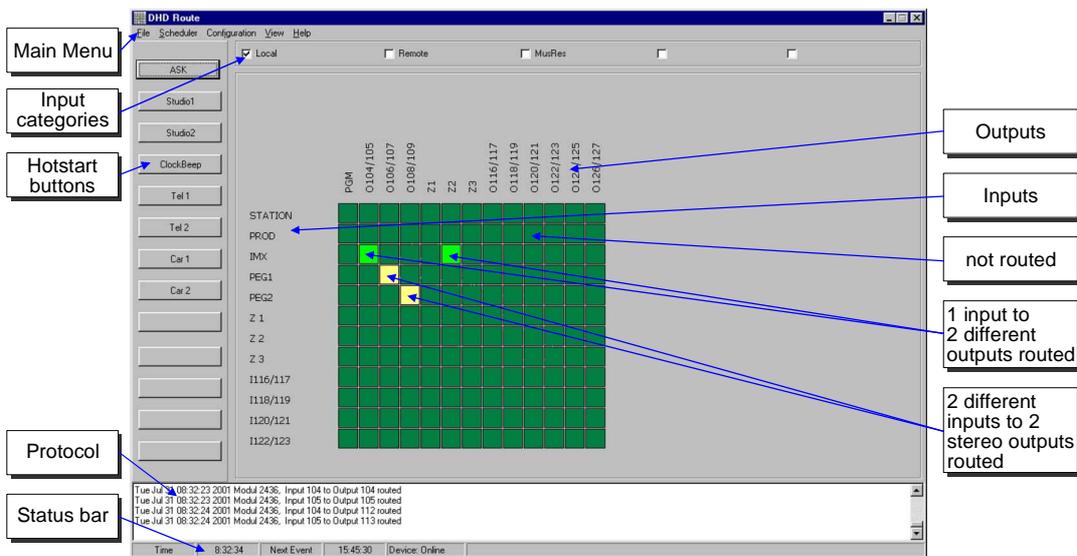


Figure 145: Main window in matrix view

6.2.1 Short description of the labelled parts

6.2.1.1 Main Menu

File

Menu Level	Description
Open	Select a routing script to execute
Save	Generates a script with all actually routed I/Os and saves it to a given directory
Exit	Terminates connection to RM3200D and closes the program

Table 11: Main Menu File

Scheduler

Menu Level	Description
Scheduler (Hotkey F8)	Opens the scheduler to organize time controlled script executions

Table 12: Main Menu Scheduler

Configuration

Menu Level	Description
I/O setup (Hotkey F5)	Access to the main configuration window
Hotstart	Opens the Hotkey-configuration
Script	Runs the Script-Editor
Confirm Connect	Enables or disables the confirmation dialog when initiating a route command
Colors	Here you can change the appearance of the Matrix buttons

Table 13: Main Menu Configuration

View

Menu Level	Description
Show Matrix	Switches the main window between matrix and routing table view
Display Legend	Only available in matrix view: shows configured colors and their meaning in the matrix view
Single channel	When checked, left and right channel of a stereo input or output are displayed separately. Otherwise the channel appears only once for left and right together.

Table 14: Main Menu View

Help

Menu Level	Description
About	Shows software revision level
Help	Opens integrated software help, not implemented yet

Table 15: Main Menu Help

6.2.1.2 Input categories

Enables filtering of input sources as defined in main configuration window. Checked categories will appear in input source list or matrix view. (In Picture 1: microphones and telephones are checked)

6.2.1.3 Inputs

Shows all routable input sources in a list.

6.2.1.4 Routing table

Shows all available outputs with its connected input sources. See below how to route I/Os.

6.2.1.5 Protocol

Writes all received routing information to a file "route.log" in the "route.exe" directory

6.2.1.6 Status bar

Divided into 4 parts, displays:

- current time
- time of next scheduled script execution
- connection state, if connected via Ethernet the IP of the Ethernet/Serial line converter

6.2.1.7 Hotstart buttons

The fastest way to execute a script. Hotstart buttons are configured by:

Menu >> Configuration >> Hot Start or Hotkey F6 (See chapter 5)

6.2.1.8 Connect buttons

Routes selected input to selected output

6.2.1.9 Legend

Shows configured colors and their meaning in the matrix view (Hotkey F11)

6.2.1.10 Inputs & Outputs

All routable, not filtered I/Os for use in matrix

6.2.2 How to route I/Os manually

The "single channel" option

If "single channel" is disabled, the software finds automatically the left and right channel and routes both to the appropriate output channels. If "single channel" is enabled, the user has to find and connect left and right inputs separately. This offers the ability to connect different input channels to one stereo output.

There are two ways to connect an audio source to an output; both can be combined with the "single channel" option:

1. In route table view: "single channel" disabled: Click on a source in the input source list. Then select the output in the route table you wish to connect. Now press the "connect" button. Both (if stereo input) channels are routed to both output channels (if stereo output). If the source is mono and the output is stereo, the mono channel will be routed to the left output channel. If the output is mono and the source is stereo, the left source channel will be routed to output. You can also use Drag&Drop instead of clicking on "connect".

To disconnect, just route "none" to the appropriate output.

2. In matrix view: All cross points are shown as a square (button). Just click one of them to initiate the route command or, if it is already enabled (default color: light green), select another input to change routing or click the Enabled button to change routing to "none" (muting the output).

A (by default) olive square indicates that the stereo source is not completely routed. The following situations will cause an olive colored button:

Only the left OR the right channel of a stereo output is used

On a stereo output, the left and right channels come from two different inputs (e.g.: TV-L and RADIO-L linked to TAPE-L and TAPE-R)

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On a stereo output, the left and right channels are linked to the same channel on a stereo input (e.g.: TV-L and TV-L linked to TAPE-L and TAPE-R)

If the "Confirm Connect" option is enabled, the program will ask you for each routing command.

In matrix view, the square you clicked is highlighted by a yellow rectangle while the Confirmation box is shown, so you can make sure you have selected the correct cross point.

6.3 How to configure I/O's

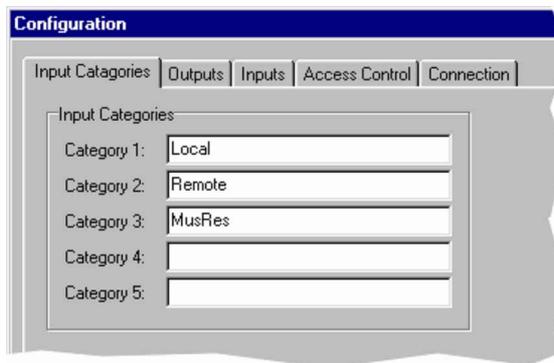
First, select `Configuration` from the main menu and then `I/O Setup`. Now enter your password in the appearing dialog box. The default setting is `default`. This can be changed later in the Configuration window.

In the next step, the software asks you for the definition file that comes with your DSP frame.

If you are connected to the frame you can select `load from device` and enter the device ID 0 (zero), otherwise select the appropriate file by clicking the `"..."`-button.

When these steps are done, press `OK` to get to the configuration window. If you selected `Load from device`, a progress bar will appear that indicates the data transmission from the DSP frame. This process takes approx. two minutes.

Now the main configuration window appears:



As you can see, there are five categories, in the following they are explained separately.

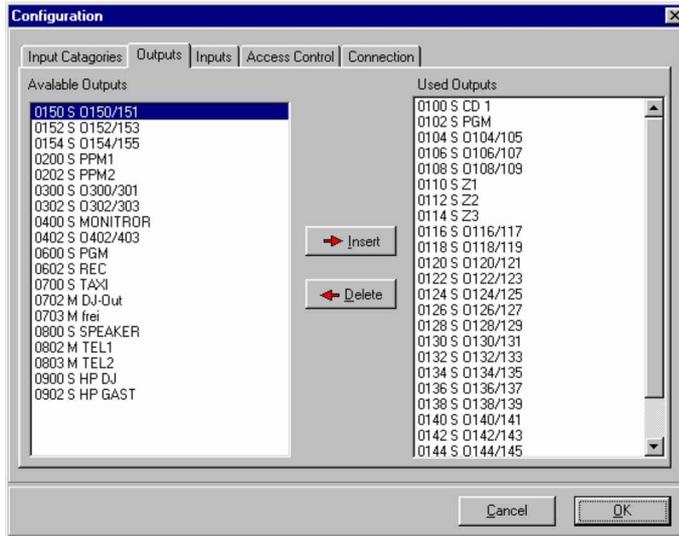
All adjustments you make here in the configuration window are stored on the PC where you run the software. So you can define a dedicated configuration for each PC (if more than one is connected).

Figure 146: Window „Configuration: Input Categories“

Input categories

Here you can define up to five input categories by giving a name each. They are used to filter unused sources from all available input sources in the main window to get a better overview. Remember the five checkboxes on top of the main window! By ticking one of them, you make the inputs in that category visible and you can route them. By unticking, routed inputs stay connected until you assign the connected output to another input. You cannot disable the routing directly, because the input is hidden until you tick the checkbox again to make it visible.

Outputs



In the left listbox ("Available Outputs") you can see all outputs available in the system, the right listbox ("Used Outputs") shows all outputs that can be routed by the program.

Figure 147: Window „Configuration: Outputs“

To insert one output in the right list select it from the left box and press the `Insert` button. If no items in the right box are selected on inserting a new one, the new item is inserted at the bottom of the list. To insert an item at a different position, highlight the item under which you want to insert the new output.

To remove an item from the right list, just select one and press `delete`.

You can also use Drag&Drop to insert, delete and arrange outputs in the right listbox. In this case, items are inserted where you point with the cursor on dropping the item. To arrange the right list, mark the one you wish to change by pressing the left mouse button. Now hold your mouse key down and pull the item to the required position, then release the mouse button.

Outputs in the matrix or the routing table in the main window will always appear in the order you configured here.

Inputs

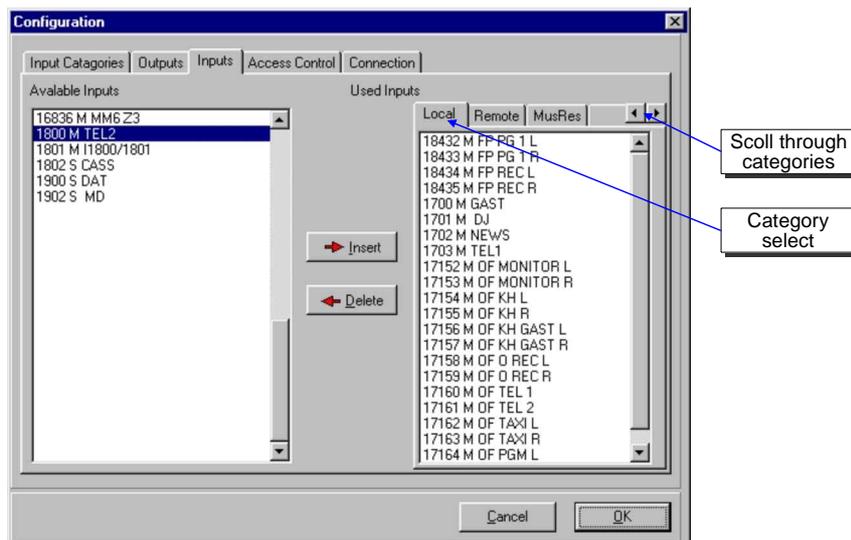


Figure 148: Window „Configuration: Inputs“

Defining inputs works in the same way as defining outputs with the difference that you can put an audio source into ONE of the five categories. Select one of them by clicking with your left mouse button on the category name above the right listbox. If one of your defined categories is not visible, scroll through the names by clicking on the small arrows beside the names.

Access control

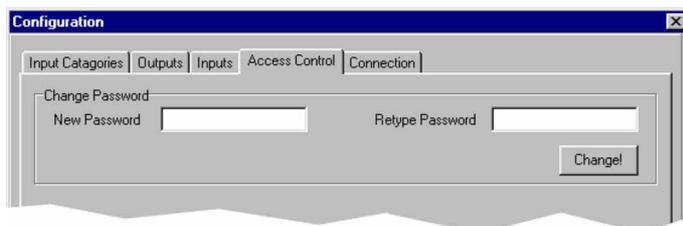


Figure 149: Window „Configuration: Access Control“

Here you can change the password that is required to access the configuration window. Enter a word or numbers you can remember later in the first edit field and then type it again in the second. Press the `change` button to encrypt and save your new password.

The password can be a combination of numbers or characters up to a length of 20 digits. It must contain at least one character. Otherwise, the program will not accept it. By default the password is `default`.

If you loose your password, please send an e-mail or phone DHD. Addresses and numbers are shown under `Menu >> Help >> About`.

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Connection

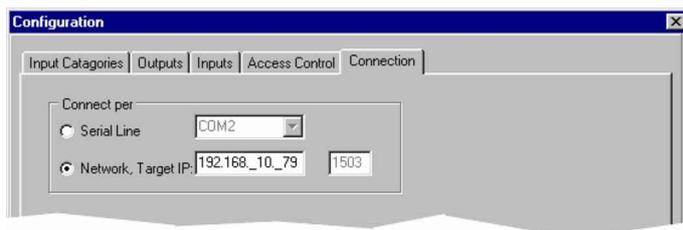


Figure 150: Window „Configuration Connection“

In this card you specify the way your DSP is connected to the PC. By default, `serial line` is selected. Choose the COM port where the cable is plugged into your PC. (See the RM3200D manual for details about the cable.)

In case you use Ethernet (TCP/IP) enter the IP address of the network/serial line converter. The network port is fixed to 1503. After you finished your changes, the program has to be restarted.

6.4 The scheduler

The scheduler gives you the ability to define time script executions. It is a very flexible tool. The picture below shows the first of three cards in the scheduler window.

Defining events

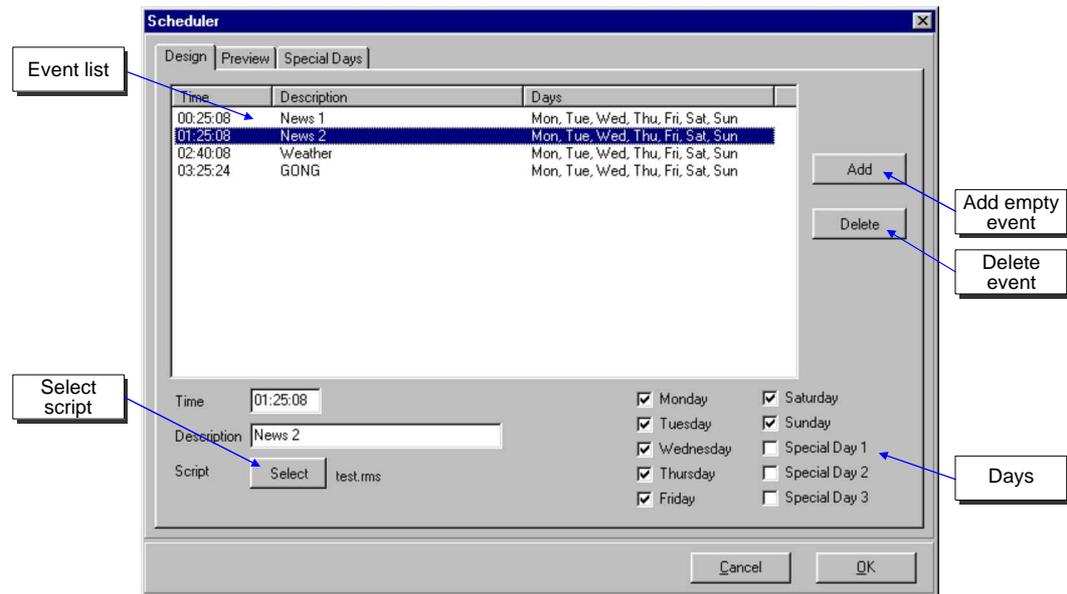


Figure 151: Window „Scheduler: Design“

In this window you define the events.

Just add one by clicking the **Add** button. As you see a new line appears in the event list. The time of the new event is set to 00:00:00, it has no description and no script is assigned. By default it will be executed daily (all week days are checked). To change the execution time, place the cursor in the time edit field at the first position. Now type in your time (e.g.: simply press the numbers 123550 for 12:35:50).

We recommend to always type in complete times to avoid errors. The description can be changed by entering the text in the appropriate edit field. Now you need to select a script. It should already exist (See chapter 6 for creating scripts). Press the **Select** button and a file dialog appears. Choose a file and confirm your selection. By default, your script will run every weekday. To change this, check or uncheck the checkboxes beside the days. See below about special days.

The preview card

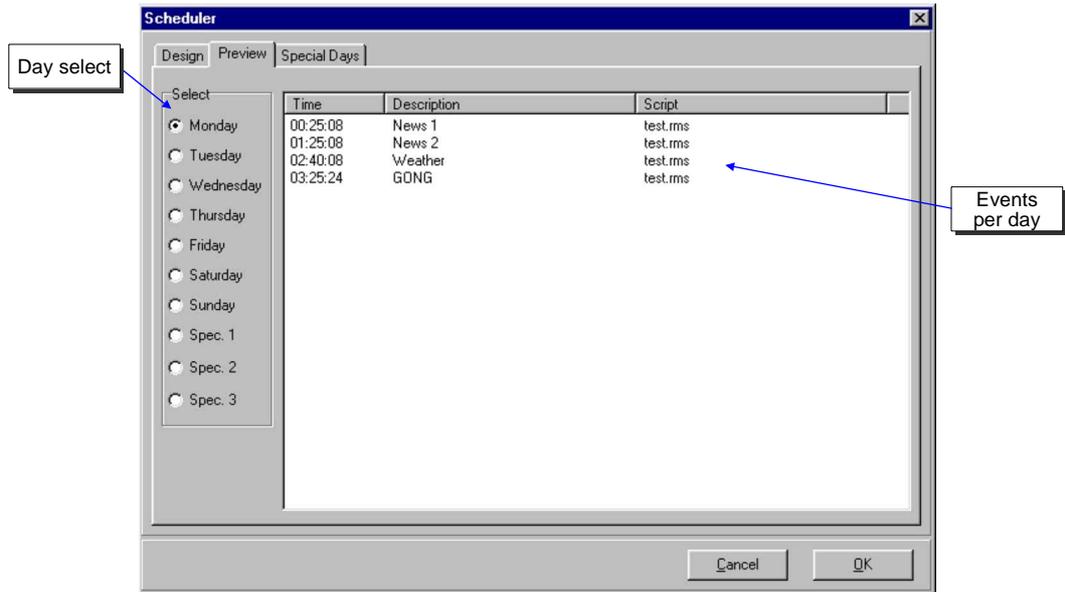


Figure 152: Window „Scheduler: Preview“

Here you see all events that will be executed on a day. To see another day, select one from the list on the left side.

The list shows the execution time, the description and the name of the script that will run.

Defining special days

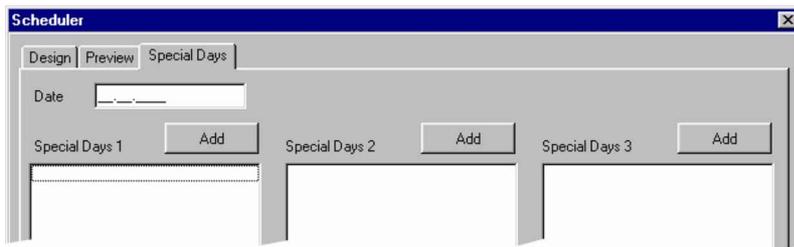


Figure 153: Window „Scheduler: Special Days“

What is a "special day"?

A special day is a list of dates. You can define three of them. For adding a day, edit the date in the edit field above the list in this format: DD.MM.YYYY. Press the "Add " button above the list in which you wish to insert the date.

Example for special day usage:

Add three dates to your special day 1:

July 6th, 2001, August 19th, 2001, May 29th, 2001. Design a new event as described above. Uncheck all days exclusive of Special day 1. If it is not checked yet, please do so. Press OK.

This script will be executed on three days in the year 2001: On the birthday of George W. Bush, the birthday of Bill Clinton and the birthday of JFK. If you additionally tick Monday on the Design card in the Scheduler window, it will be executed on every Monday, too.

6.5 Hotstart buttons

Hotstart buttons are the fastest way to execute a script manually. Just press one of the buttons to run the given script. The picture below shows the configuration of these buttons.

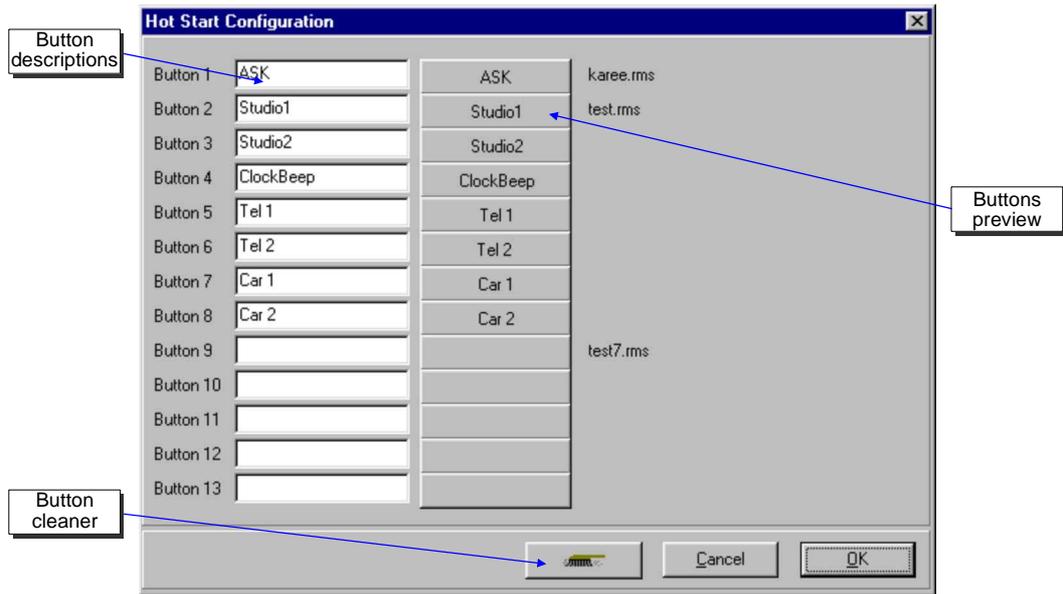


Figure 154: Window „Hot Start Configuration“

To define a Hotstart button, enter a description in the edit field. Then press the `Preview` button to select the script that should be executed when the button is pushed later. The script name will appear on the right side.

To delete a Hotstart definition, select the hand brush from the upper right corner and touch the button that you wish to reset.

6.6 Scripts

What is a script? It is a text based ASCII file that contains a list of routing commands.

There are several ways to create them. The easiest way is to save a routing state by selecting "Save" from the "File" menu in the main window. Enter a name and confirm. After that, a file with the extension ".rms" should be created. This file can be used for the scheduler, the Hotstart buttons or can simply be reopened when selecting "Load" from the "File" menu in the main window.

The picture below shows the script editor. It represents another way to create scripts.

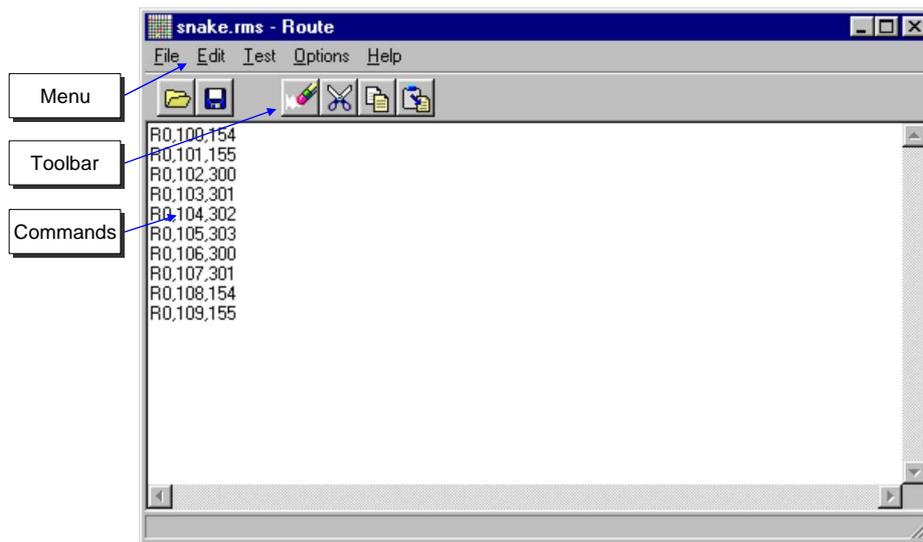


Figure 155: Window Script editor

6.6.1 Explanation of the labelled parts:

6.6.1.1 Menu

File

Menu Level	Description
New	Creates a new empty script file
Open	Lets you select an existing file that will be opened
Save & Save as	Saves the file you are currently editing to a specified directory, and you can choose a filename
Exit	Closes the editor

Table 16: Main Menu File

Edit

Provides MS Windows standard edit functions like Copy and Paste.

Options

Menu Level	Description
Ask before script is executed	Adds the line ASK at the top of the script, but will not be displayed. That line indicates that the program will ask before the script is executed.
Ask for every command	Adds the line ASKALL at the top of the script. This line will also not be displayed. It indicates that the program requires a confirmation for every routing command in that file before the command is executed. ASK and ASKALL can be combined.

Table 17: Main Menu Options

6.6.1.2 Toolbar

Key "Open"

Like selecting File >> Open from menu

Key "Save"

Like selecting File >> Save from menu

Keys "Edit"

MS Windows standard edit functions

6.6.1.3 Commands

The program is based on commands. Here is a list with all supported routing commands and their syntax:

R0,300,1200

R = Route command, 0 = Device ID, 300 = Output address, 1200 = Input address

Routes input with ID=1200 to Output with ID=300 on DSP-frame 0

