

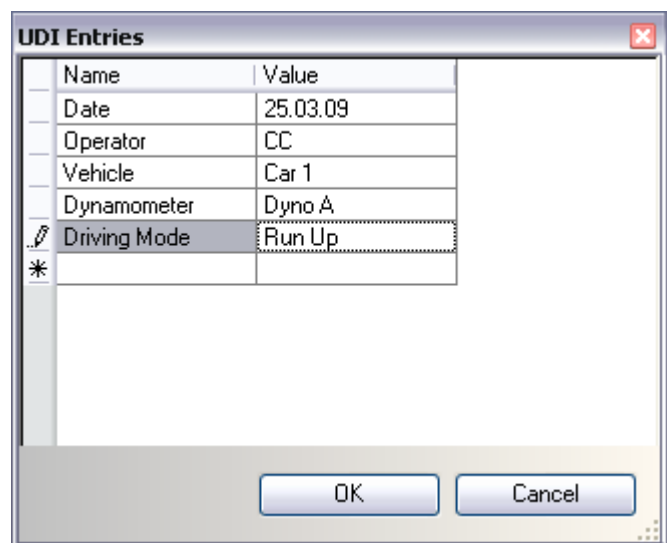
Working with User-Defined Information

What is user-defined information?

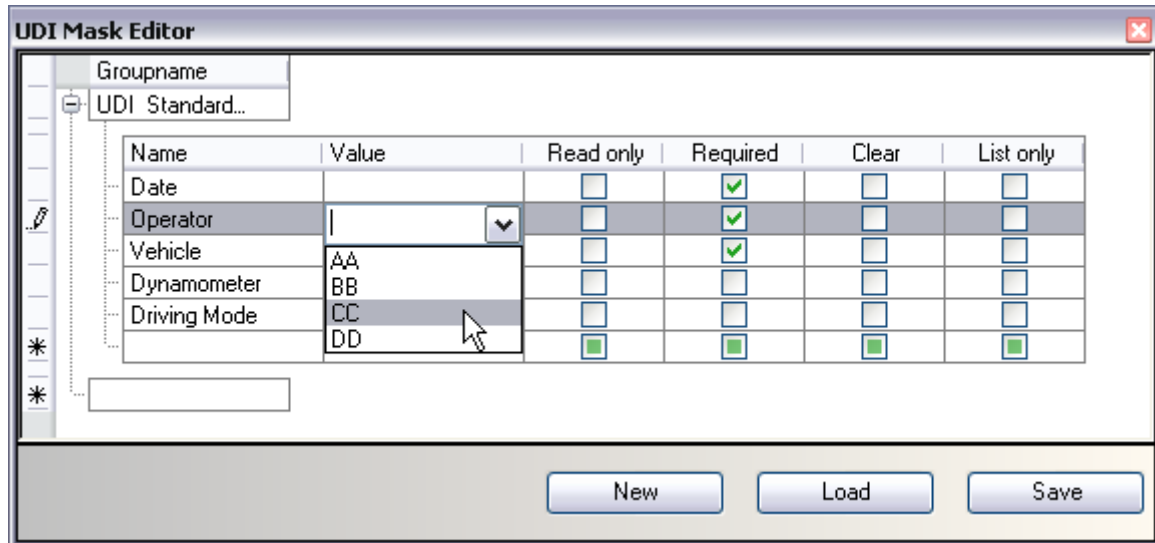
- User-defined information (UDI) is additional information that is saved along with the actual audio recording.
- This information is entered following a procedure defined by the user. In the automotive area, for example, these additional information items can refer to the vehicle type, the dynamometer used or the state of the vehicle.
- Once saved, UDI can be displayed, for example, with the HEAD Explorer Extension¹ or with the ArtemiS analysis software in the Mark Analyzer, in the Data Viewer and in generated reports.

Recordings with UDI

- The HEAD Recorder software allows UDI to be saved directly with a recording. With the menu command "Tools" -> "UDI Entries", UDI items can be specified, which are then saved in the same form with each subsequent recording.
- If it is required to save different UDI values for each recording, the "UDI Mask Editor" in the "Tools" can be used to define an input mask, which must then be filled in before or after each recording.
- After clicking on the "UDI Mask Editor" item in the "Tools" menu, the editor window is displayed. In the left column of the table, the name of the respective UDI item is entered (e.g. "Driving Mode"), and in the right column this parameter can be assigned a value. However, this field can also remain empty. Step by step, the various information items are thus compiled.
- It is also possible to create a predefined list of possible parameter values, from which an entry can be selected when the UDI is to be entered into the mask.
- To do so, enter the first entry you want to appear in the list into the right column of the editor, and then press [Alt]+[Return] on the keyboard. Afterwards, enter the second list item etc.



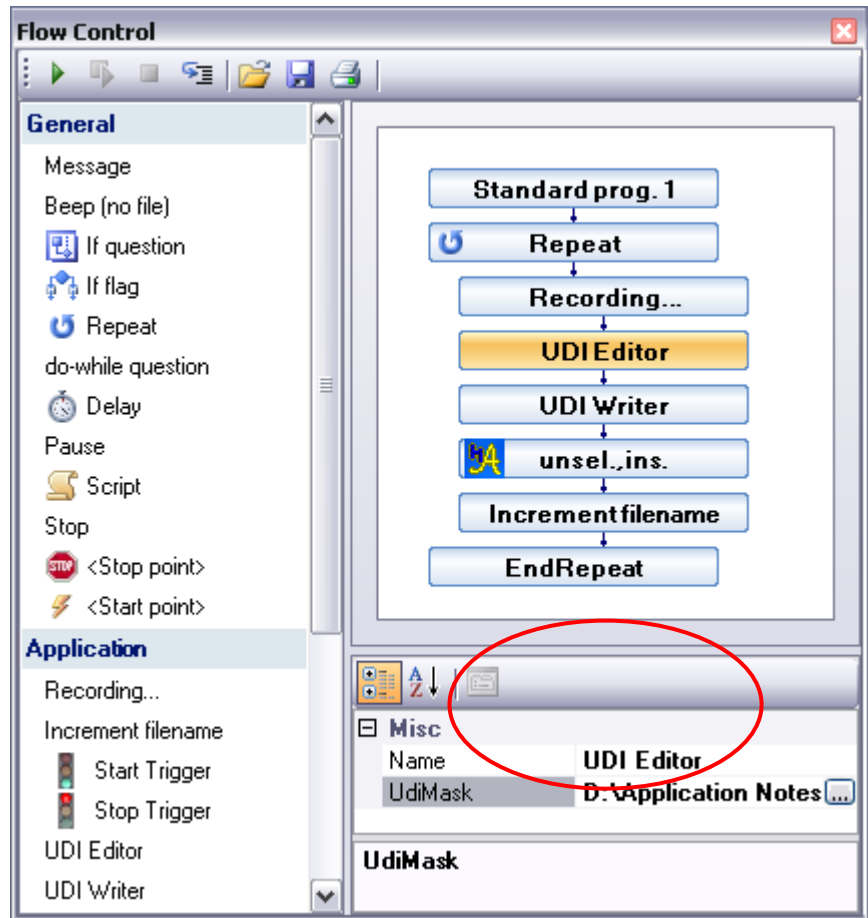
¹ The HEAD Explorer Extension is dongle-free software from HEAD acoustics. A description of its possible applications can be found in the Application Note "Dongle-free HEAD acoustics Software". Please contact us if you wish to use the HEAD Explorer Extension. Your HEAD acoustics representative will gladly provide it to you.



- If the “List only” option is enabled, only UDI items from the list you specified may be selected. If this option is disabled, the user can choose to select a UDI item from the list or to type one manually.
- A field protected by the “Read only” flag is only displayed, but cannot be edited later.
- If “Required” is enabled, the corresponding field must be filled in, otherwise the process will not continue. These fields are later highlighted in yellow in the input mask.
- If the “Clear” field is checked, the value of this UD item must be entered anew each time. If this option is disabled, the value specified during the configuration or the last entered value is displayed. This allows UDI that remains constant to be predefined, so it does not have to be entered anew with each use.
- The buttons “New”, “Load” and “Save” are used to create new input masks, to load existing masks and to save masks. This allows for the development and use of different UDI input masks for different types of measurements (e.g. test track and dynamometer).
- In order for the UDI of a saved input mask to be saved along with a measurement, the input mask must be called using the Flow Control² function. To do so, open the Flow Control editor and stop the current Flow Control program. Afterwards, the required blocks can be integrated into the Flow Control program.

² The use of the Flow Control function in the HEADRecorder is described in detail in the Application Note “Flow Control”.

- If the UDI is to be specified *before* a measurement, the “UDI Editor” block must be inserted before the “Recording” block. In the Properties dialog, the desired UDI input mask can then be selected.
- However, it is also possible to enter UDI *after* a measurement. This allows peculiarities found during the measurement to be documented. In this case, the “UDI Editor” block, combined with a “UDI Writer” block, must be inserted after the “Recording” block. Then the desired input mask can be selected in the UDI editor, and the UDI Writer inserts the desired UDI items into the measurement data that have just been saved.



The 'UDI-Editor' dialog box shows a table with the following data:

Name	Value
Date	25.03.09
Operator	AA
Vehicle	Car 1
Dynamometer	Dyno A
Driving Mode	Run up

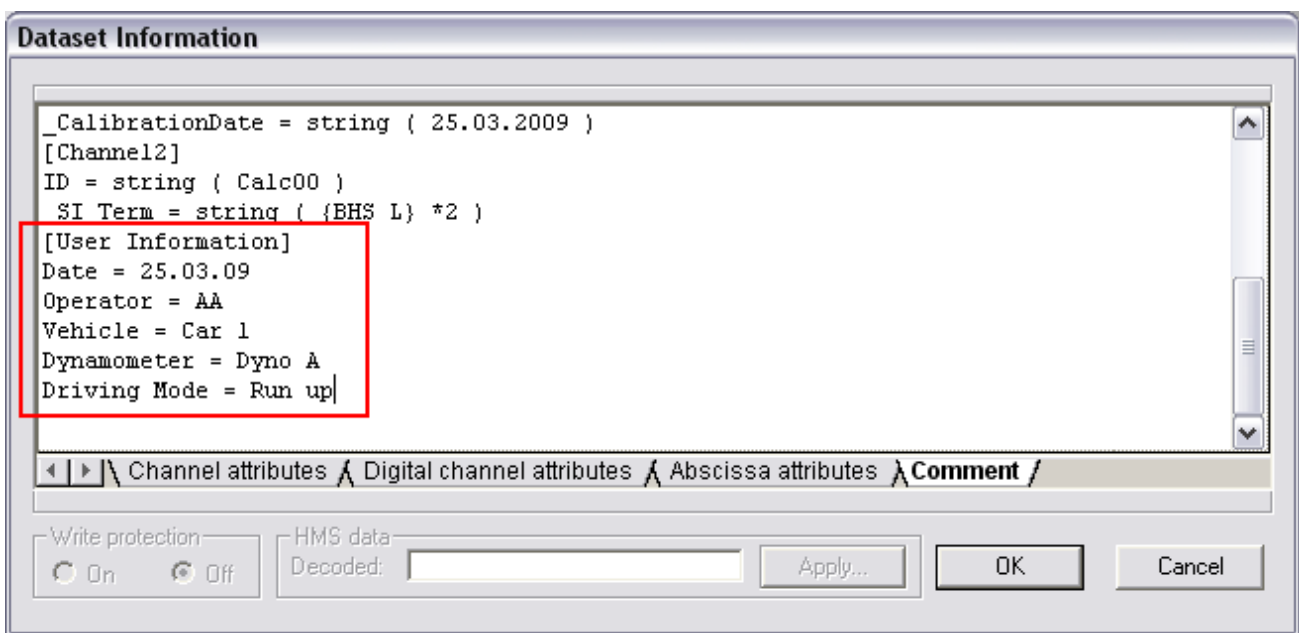
Buttons for 'OK' and 'Abbrechen' are visible at the bottom.

- Such a Flow Control program invokes the UDI Editor after each measurement, so the user can then enter all required information regarding the measurement.

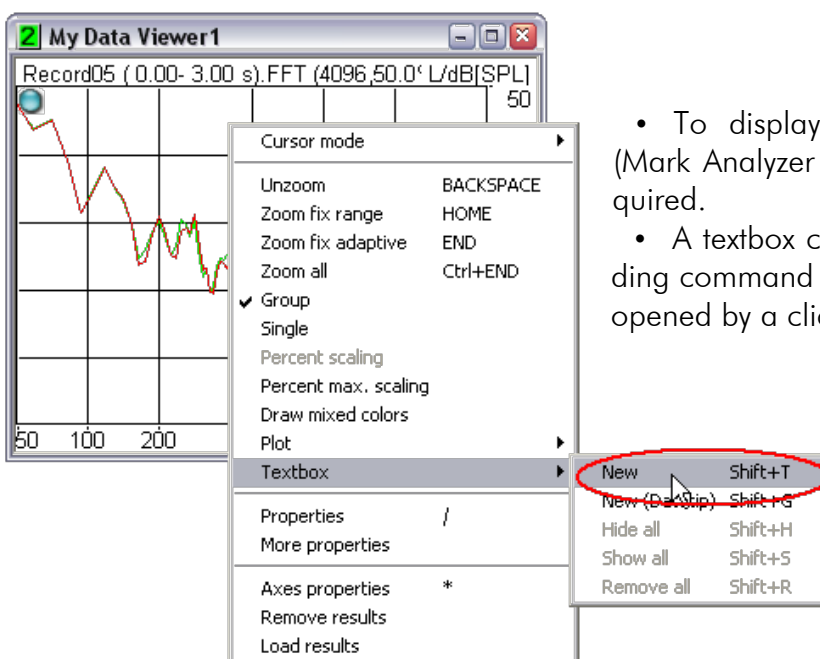
Using UDI in ArtemiS

Display of UDI

UDI can be queried in ArtemiS via the dataset information function. To do so, open the Properties dialog of the audio file in ArtemiS. Then click on the "Dataset Info" button to open an information window where the UDI is shown on the "Comment" tab at the end of the list, below the other information. It is also possible to edit the UDI items directly in this list. Clicking on the "OK" button saves the changes.

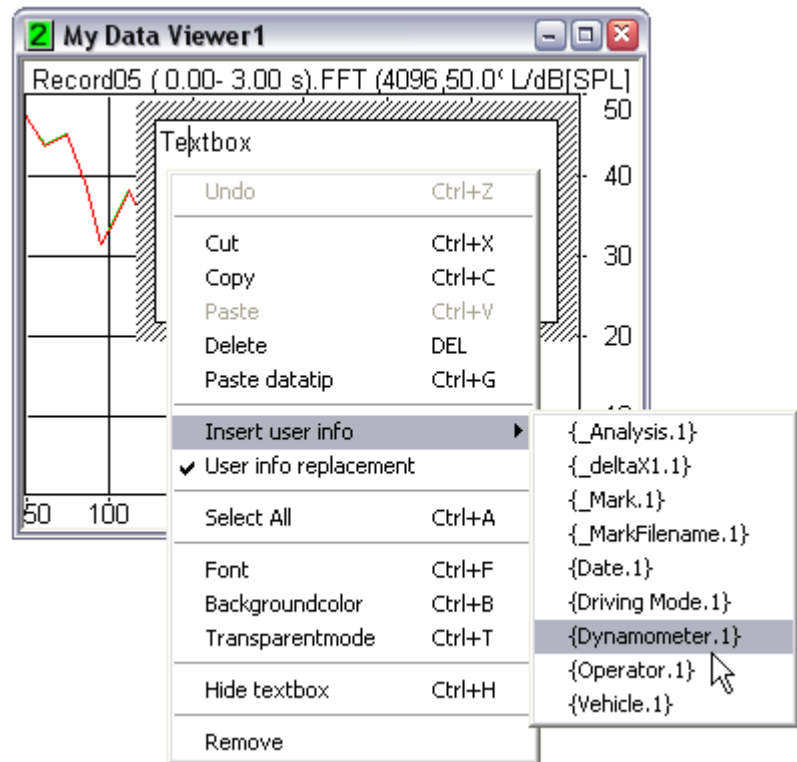


UDI display in a diagram



- To display UDI in a diagram in ArtemiS (Mark Analyzer or Data Viewer), a text box is required.
- A textbox can be created with the corresponding command in the context menu, which can be opened by a click with the right mouse button.

- Afterwards, the context menu of the textbox can be opened with a right-click into the text-textbox, and the desired UDI items can be chosen from the list under "Insert user info".
- This list also contains additional information about the performed analysis; these items are marked with an underscore "_" at the beginning.

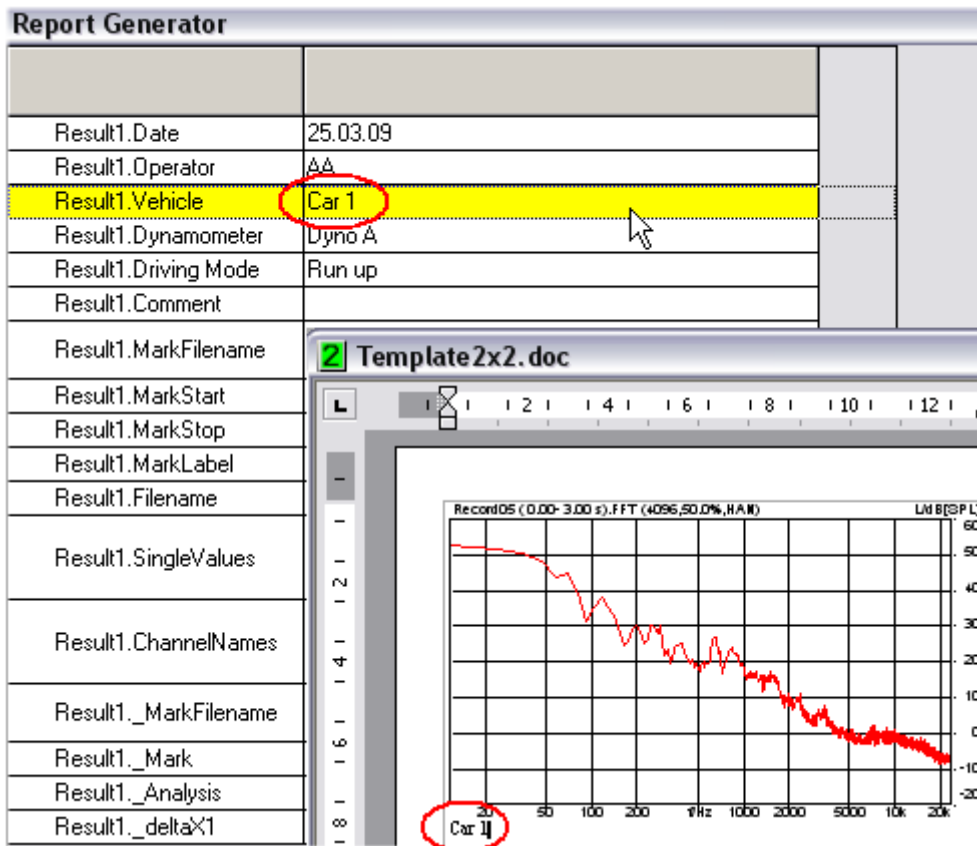


- As long as the mouse pointer is within the textbox, the names of the UDI items are shown in curly brackets.
- When the mouse pointer is moved out of the textbox, the UDI values are shown.
- The diagrams configured this way can be copied to the clipboard as usual with the keyboard shortcut [Ctrl]+[C] or [Ctrl]+[F] for further use.

Report generation with UDI

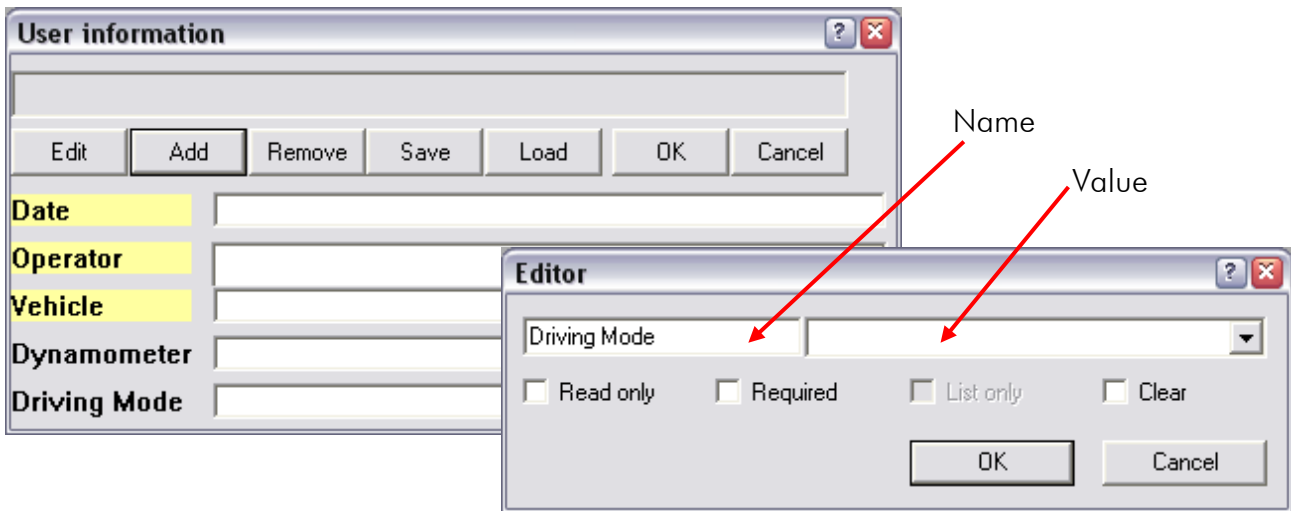
- The Report Generator function in ArtemiS³ allows a quick and automated creation of measurement reports. This function, too, supports the use of previously saved UDI.
- In the "Variables" view in the configuration mode of the Report Generator, the UDI items are listed and can be inserted into a report template with a mouse click.
- When using a template configured this way, the selected UDI items (if existent) are inserted at the specified position during the automatic report generation.

³ An Application Note about the Report Generator is available in the Download Center on the HEAD acoustics web site.

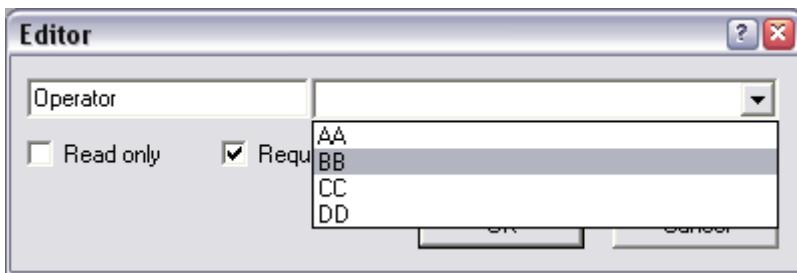


Entering UDI retroactively

- UDI can also be entered retroactively in ArtemiS. To do so, first an input mask must be created. This works in a similar way as already described for the HEADRecorder.
- First open the "Edit" menu and select the "User-defined Info" command. This will open a window, where you can click on "Add" to invoke an editor window.
- In the left field, enter the name (e.g. "Driving Mode"). In the right field, you can predefine a value, but you can also leave it empty. By clicking on "Add" again, you can then add additional UDI items one by one.



- Just like in the HEADRecorder, you can also predefine a list of possible values, from which an entry can later be selected when the UDI is entered.

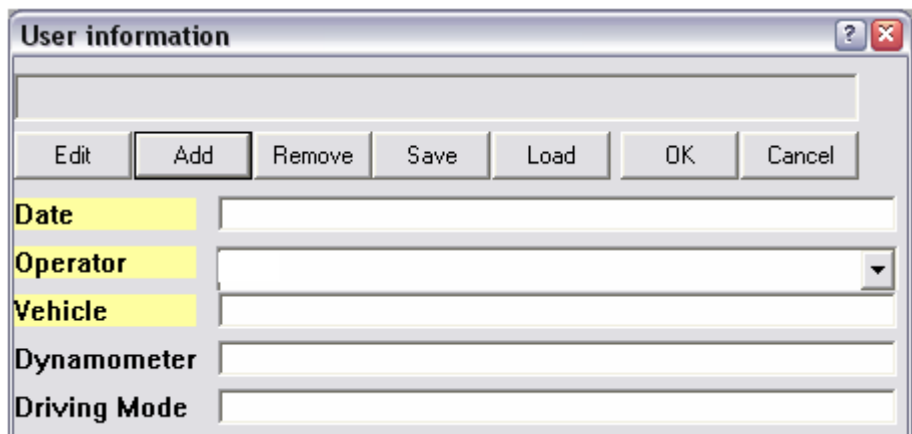


- To do so, first enter the first item to appear in the list in the right field of the editor, then keep the [Ctrl] key pressed and press [Enter]. Afterwards you can enter the second item etc.

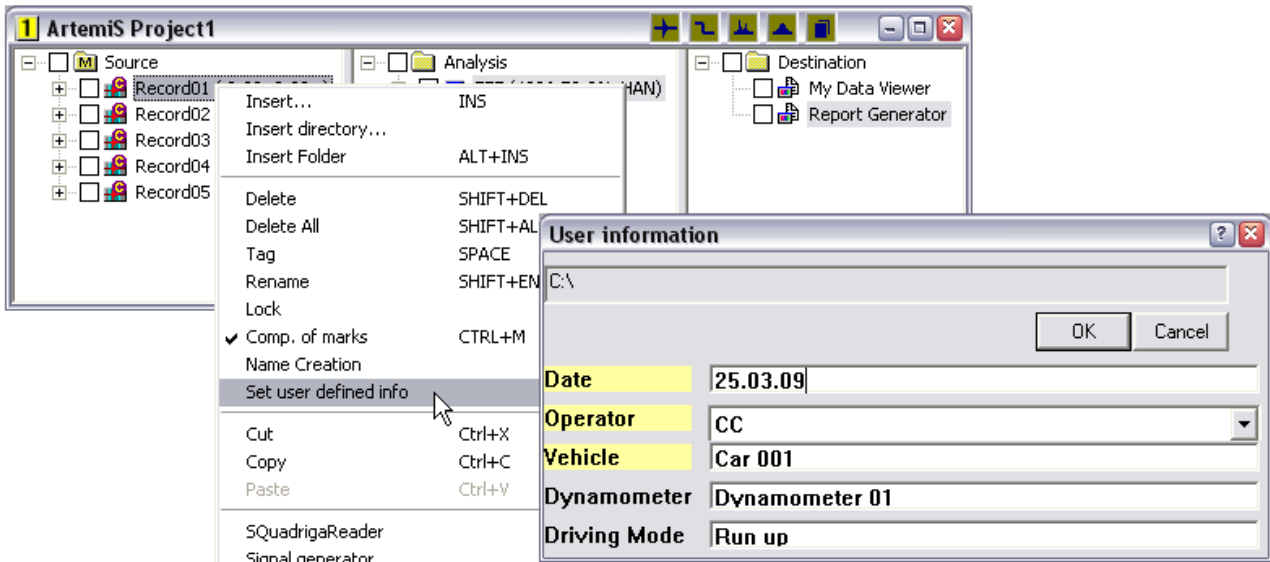
• The control options “Read only”, “Required”, “List only” and “Clear” are identical to the corresponding options in the HEADRecorder described above.

- Click on “OK” to add the UDI to the info list and close the editor.

- In the “User information” window, you can use the buttons “Edit”, “Add” and “Remove” to modify, add or delete the names and values.
- The buttons “Save” and “Load” can be used to save the current input mask or to load an existing mask.
- With the commands “OK” and “Cancel”, the UDI window is closed.



- Once an input mask has been specified in ArtemiS, it can be applied to individual sound files or entire folders with files. To do so, click on the file or folder with the right mouse button and select the context menu command "Set user defined info". The input mask specified before will automatically open, and the additional information can be entered.



Do you have any questions or remarks? Please write to: imke.hauswirth@head-acoustics.de. We look forward to receiving your response!