4.   SHEETS

Contents

This function of the main menu has two basic options: "Table display" and "Graphic display". These are divided into: "Actual sheet" and any sheets for individual areas (DP Frýdek-Místek, DP Hodolany, DP Krnov, DP Nový Jičín, DP Ostrava and DP Ráječek), which have optional data sharing.
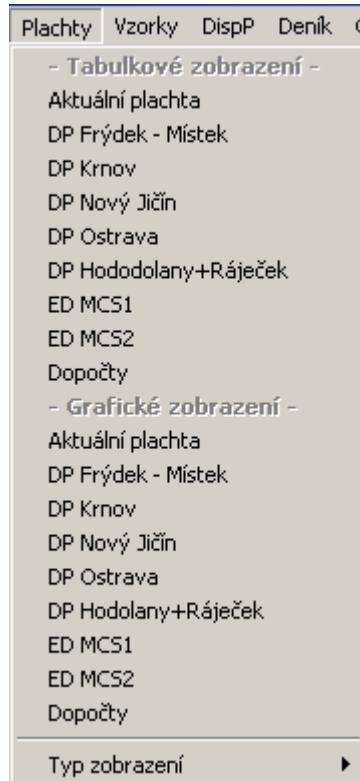
Fig. 1   Pull down "Sheets" menu

4.1 Table display

The actual sheet and/or sheets divided into individual areas can be selected.

After clicking, the window will appear with the list of existing sheets (this can be sorted alphabetically) with the date. The type of display when opening the sheet is stated in advance by the system administrator. Values in sheets can be manually overwritten (the value must be selected - i.e. back-lit). After rewriting the attribute manually a rewritable is set. If the rewritten value is part of the recalculation which is also saved in the sheet, then it is recalculated. The change of values in the sheet is bound by access rights.

Items in the sheet of the actual day in an unfinished hour are not displayed. Updating is performed 30 seconds after each hour.

At midnight the values in the sheet for new days can be reset or left there, the invalid attribute will be set for all values (dark grey colour).
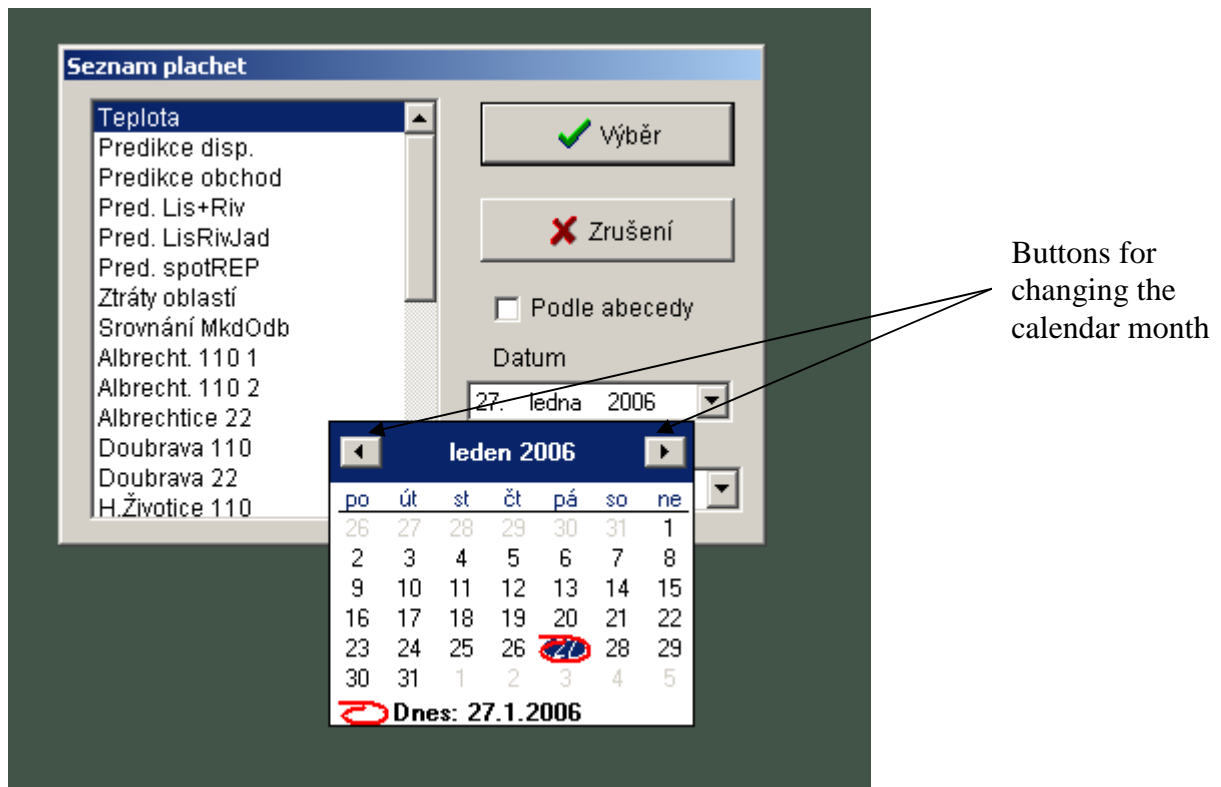
Fig. 2   Selection of the sheet and the day

After selection the respective sheet is displayed in table form. The environment is represented here by the bar of the functional buttons and the table.
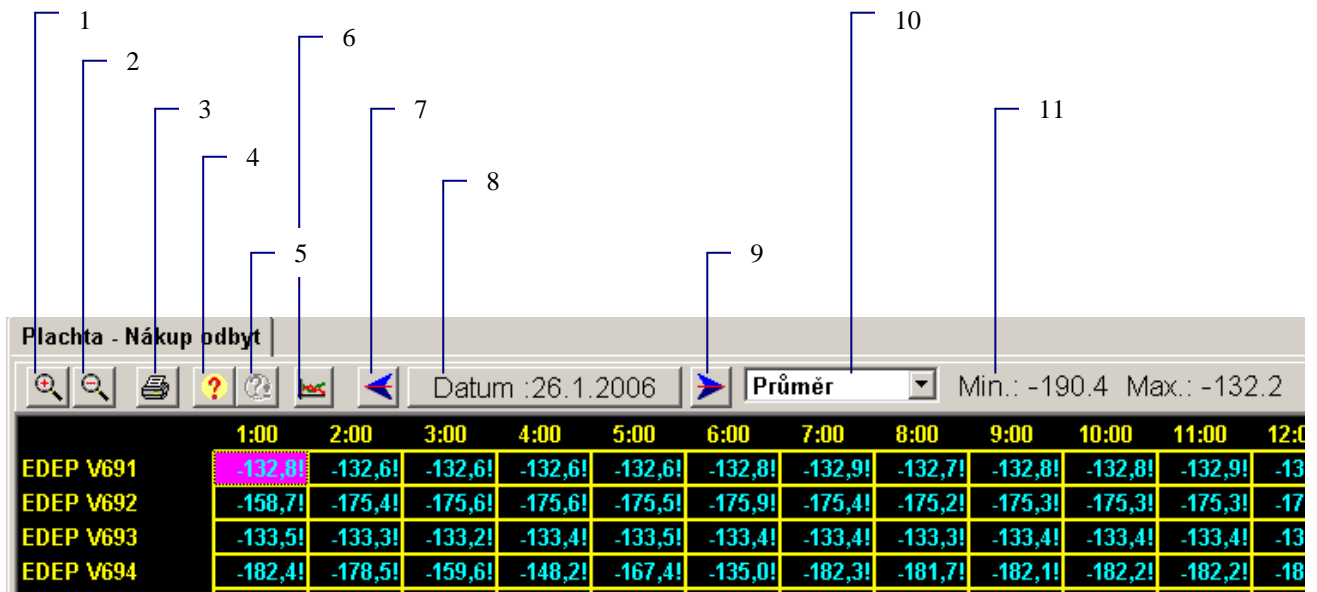
Fig. 3   Table sheet

1,2   - Magnification and minimizing of the resolution of the sheet
3   - Printing of the displayed sheet.
4   - Display help for the selected element.
5   - Display the recalculation of the selected item
6   - Open the selected value in the graph
7,9   - Display the sheet for the previous (next day).
8   - Selection of day for displaying the sheet
10   - Selection of the type of displayed value
11   - Minimum and maximum selected value (line).

Individual points are described below in the chapters with the same names

4.1.1 Increase and decrease of the resolution of the sheet

The change of the size of the font is performed in firmly set steps.

4.1.2 Printing the displayed sheet

In the "Print sheet" parameterisation window it is possible to check the field for printing the grid of the sheet. Printing can be done via the printers installed in the Windows operating system by selecting the printer from the "Select printer" pull-down menu and to set it by clicking on the "Set" button (the standard setting dialogue of the selected printer is displayed in the respective operating system and within this it is possible to set, among other parameters, the size of paper and the orientation in the printer). After completion of this parameterisation, the printing is confirmed by clicking on the "Print" icon.

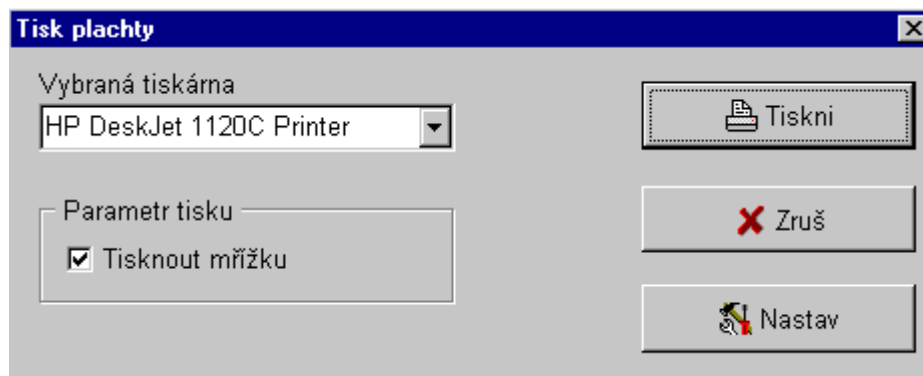Fig. 4 Parameterisation window for printing the sheet.

4.1.3 Display help for the selected item

The specification of the selected value is displayed

Fig. 5 Help for selected item

4.1.4 Display of the recalculation of the selected item

Recalculations are performed in another system and the recalculations are displayed which are physically calculated in the respective system. The formula for recalculation of the selected value is displayed. If the selected value is not recalculated, the functional button is backlit (grey).

Two types of recalculations can be used in sheets:

- *First sheet* - are recalculations which are performed directly during the processing of values on the input into the respective system: *These recalculations are stored into the sheet as the resulting values.* In the individual types of display they always express the correct current value (the value was calculated from the actual values at one time). This value in the display of the maximum and minimum is not the sum of individual values in the column of values and at the respective hour, because they were achieved at various points. The manual change of individual items will automatically update the results. These results can be manually changed. This will break the system of recalculations.

- *Second type* - are recalculations which are performed after displaying the sheet and are not physically stored in the sheet During the display of the maximum and minimum this type is not displayed (an empty line without numbers is displayed). In averages and sections, this recalculation is correct. It is not possible to manually edit these values and they can only be changed by means of the values from which the recalculation consists. On the item it is not possible to place the cursor on the item nor to display the menu, help or recalculation on it; it cannot be opened in the graph. The values in the line of the table have a blue background.

Fig. 6 Recalculation of the selected item

4.1.5 Open the selected value in the graph

Displays the selected value of the graph (a detailed description is in point 4.2 Graphic display).

4.1.6 Display the sheet for the previous (following) day

The option to browse through the sheet by individual days.

4.1.7 Selection of the day for displaying the sheet

Option to select the sheet for any day (only one year retroactively).

Fig. 7   Selection of day for displaying the sheet

4.1.8 Selection of the type of display of the value

For each sheet one of the four types of display of the value can be selected. The sheets include all changes in the values which are registered by the system. Changes are registered for one minute and are then included into the sheet.

- **Section** – actual values are displayed which are read each hour.
- **Averages** –calculated value is displayed – average of minute readings – the attribute is stated by the minimum attribute in the respective hour.
- **Maximum** – the maximum value of all changes in the values is displayed.
- **Minimum** – the minimum value of all changes in the values is displayed.

Fig. 8   Pull down menu "Options for the display of value type"

4.1.9 Maximum and minimum selected value (line)

Displays the maximum and minimum value of the selected type of display and the line.

All these functionalities are also in the menu which is called up by clicking with the right mouse button on the sheet.

4.2 Graphic display

The actual sheet and/or sheets divided into individual areas can be selected.

After this option the window with the menu for the existing sheets and values is displayed (this can be sorted alphabetically) with type of displayed value and the date.

In one graph up to 5 values (courses) can be displayed. The line graph is used for the display where in the vertical axis there is the value of the monitored value and on the horizontal axis is the time. Each displayed value has a vertical axis on which the scale is displayed. Each vertical axis is displayed in colour which corresponds to the colour of the graph and the colour of the description of the value under the graph.

It is possible to read from the graph the exact values by means of the cursor (the values are displayed in the black window in the lower part of the image – Fig.120 – Graphic sheetCon) or by pointing with the mouse to the respective point of the curve (the mouse must be inactive minimally 1 second) and beside the mouse cursor is the window with the name of the curve, unit and value.
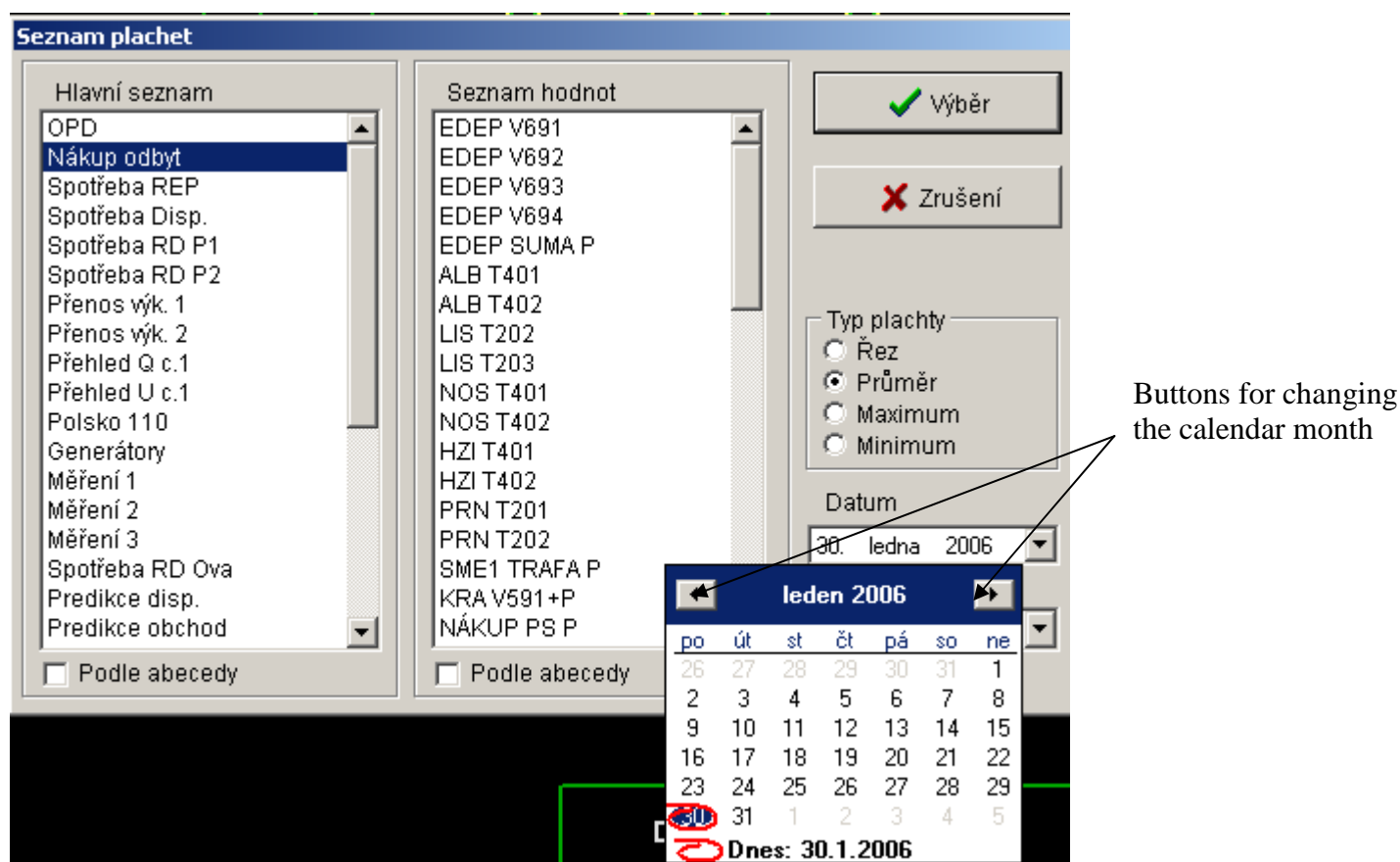

Fig. 9   Selection of graphic sheet, value, type of displayed value and the date

After selection the respective sheet is displayed in graphic form. The environment is represented here by the bar of functional buttons and the graph.
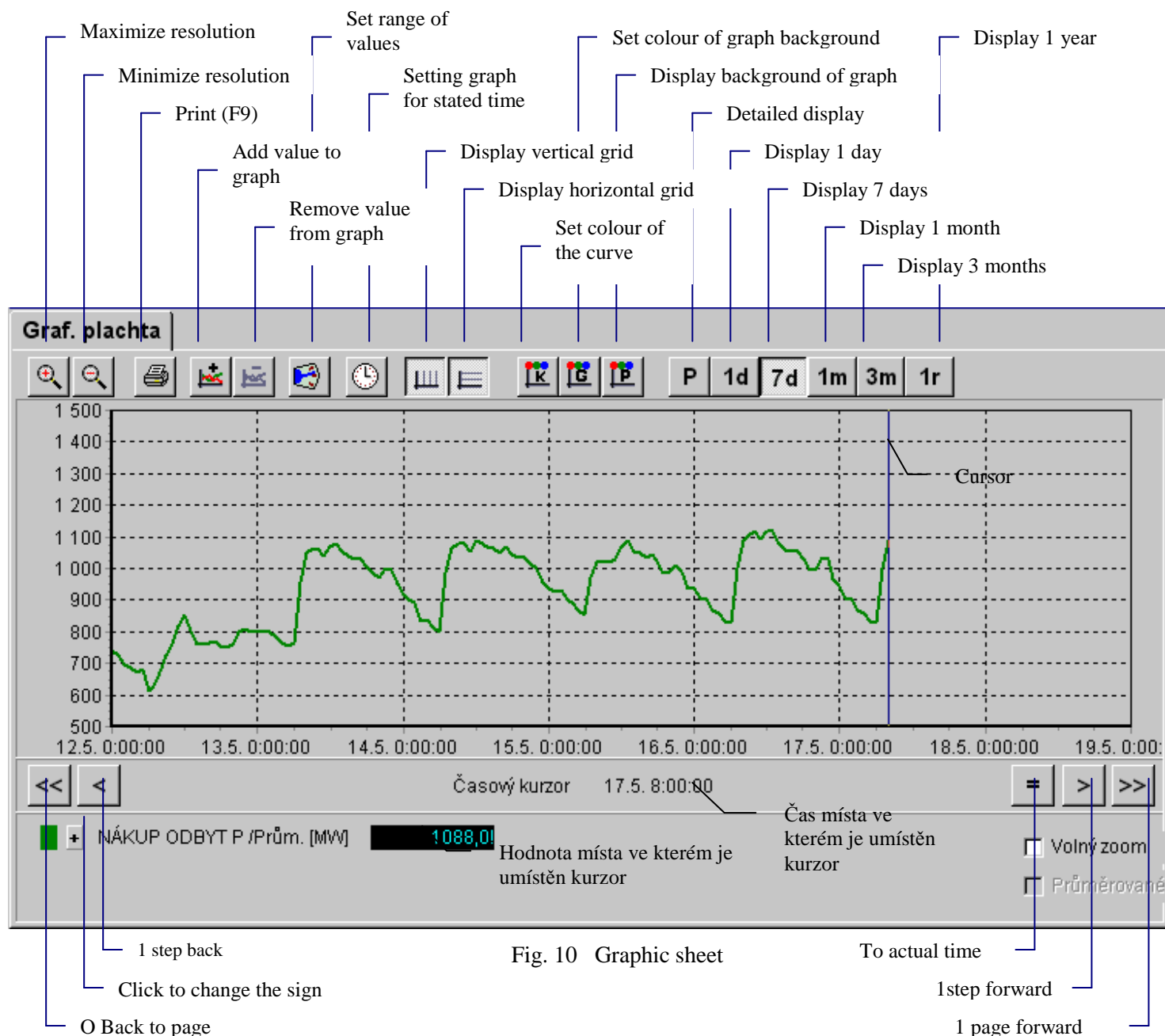
Fig. 10   Graphic sheet

4.2.1   Increase and decrease of resolution

The change of the size of the font is performed in firmly set steps.

4.2.2   Print (F9)

In the "Preview for printing the sheet" window the orientation of the paper (portrait or landscape), the size of the individual margins in % and printing of more or less details can be selected. It is possible to print using printers installed in the Windows operating systems. After pressing the "Setting the printer" button, the standard setting for the dialogue of the selected printer is displayed in the respective operating system and it is possible to set, among other parameters, the size and the quality of the printing. After completion of this parameterisation, the printing is confirmed by clicking on the button "Print".
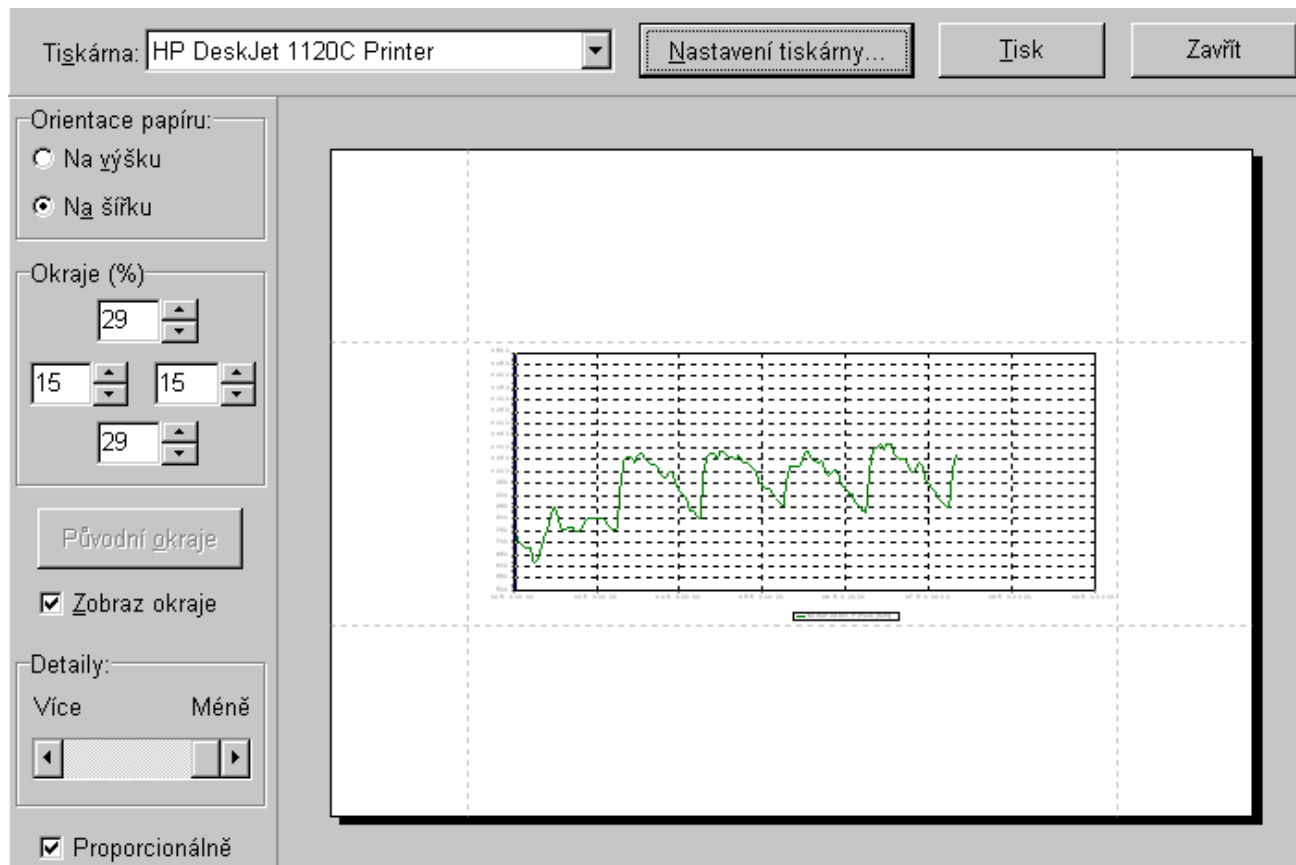
Fig. 11   Print window for graphic sheet

4.2.3   Add value into the graph

The same window as during the first selection of the sheet, values, type of displayed value and the date are displayed (Fig. 9 Selection of graphic sheet, value, type of displayed value and the date).

4.2.4   Remove value from the graph
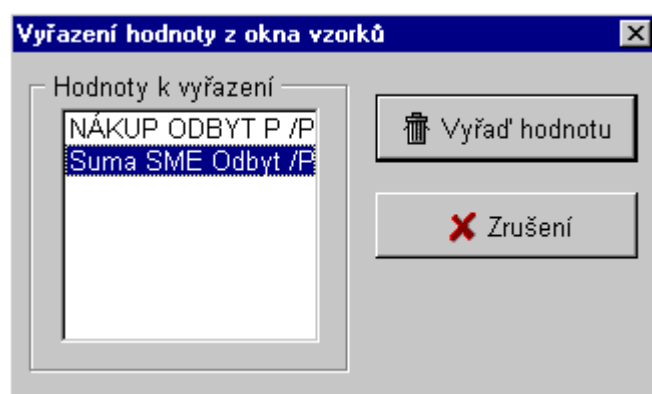
Option to exclude any value from the graph

Fig. 12   Removing the value from the graph

4.2.5 Setting the range of values

Option to set the upper and lower range of values within –9999 to 9999.
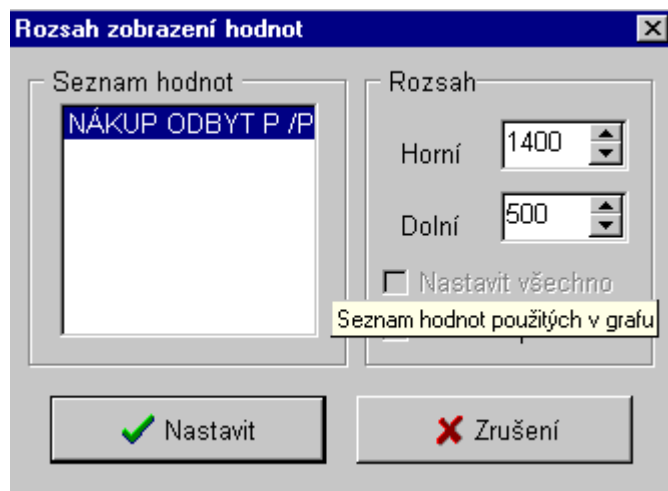

Fig. 13   Setting the range of values

4.2.6 Setting the graph for the stated time

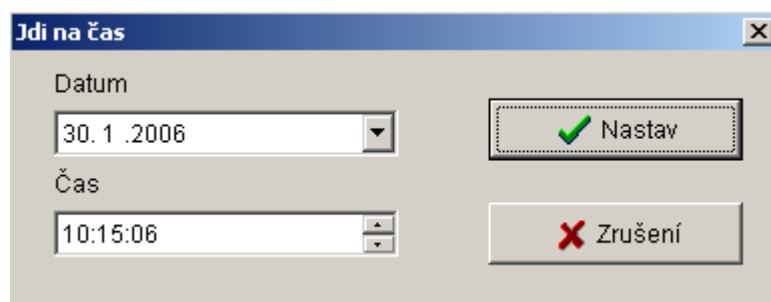Option to set the cursor for the date and exact time.

Fig. 14   Setting the graph to the stated time

4.2.7 Displaying the vertical and horizontal grids

Option to set the display of the vertical and horizontal grids.

4.2.8 Setting the colour of the curve, colour of the background of the graph, colour of background of the graph panel

Option for the user to set the colours according to their requirements.

Fig. 15   Setting the colour of the curve
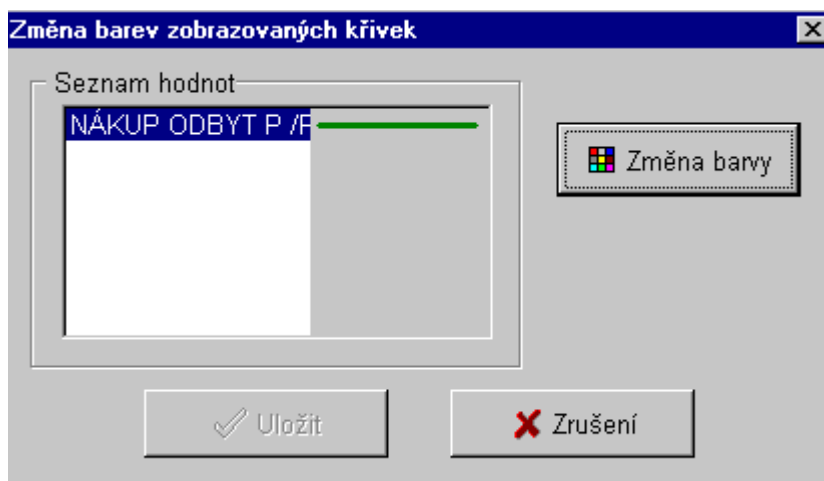
4.2.9   Detailed display, Display 1 day, Display 7 days, Display 1 month, Display 3 months, Display 1 year

The user selects the time range of the displayed values – from one day up to one year. The display for three months and one year is a time demanding operation. The user is shown the window with the text "This operation is time demanding. Do you really want to continue?" If in the window more values are displayed, such values will be selected whose range will be changed.

All these functionalities are also in the menu which is called up by clicking with the right mouse button on the sheet.