



User's guide



Connection of the SDT170 instrument to the DDS2000 application

Application :

- ✎ Transmission and archiving of data measured by the SDT170 device
- ✎ Transmission of a route created in the DDS2000 application to the SDT170 device

Characteristics :

- ✎ Communication of the program with the device via a standard RS232 interface
- ✎ Automatic search for a device connected to the serial port

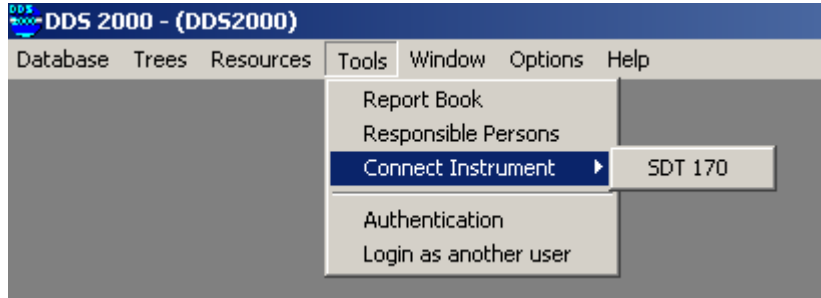
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Contents:

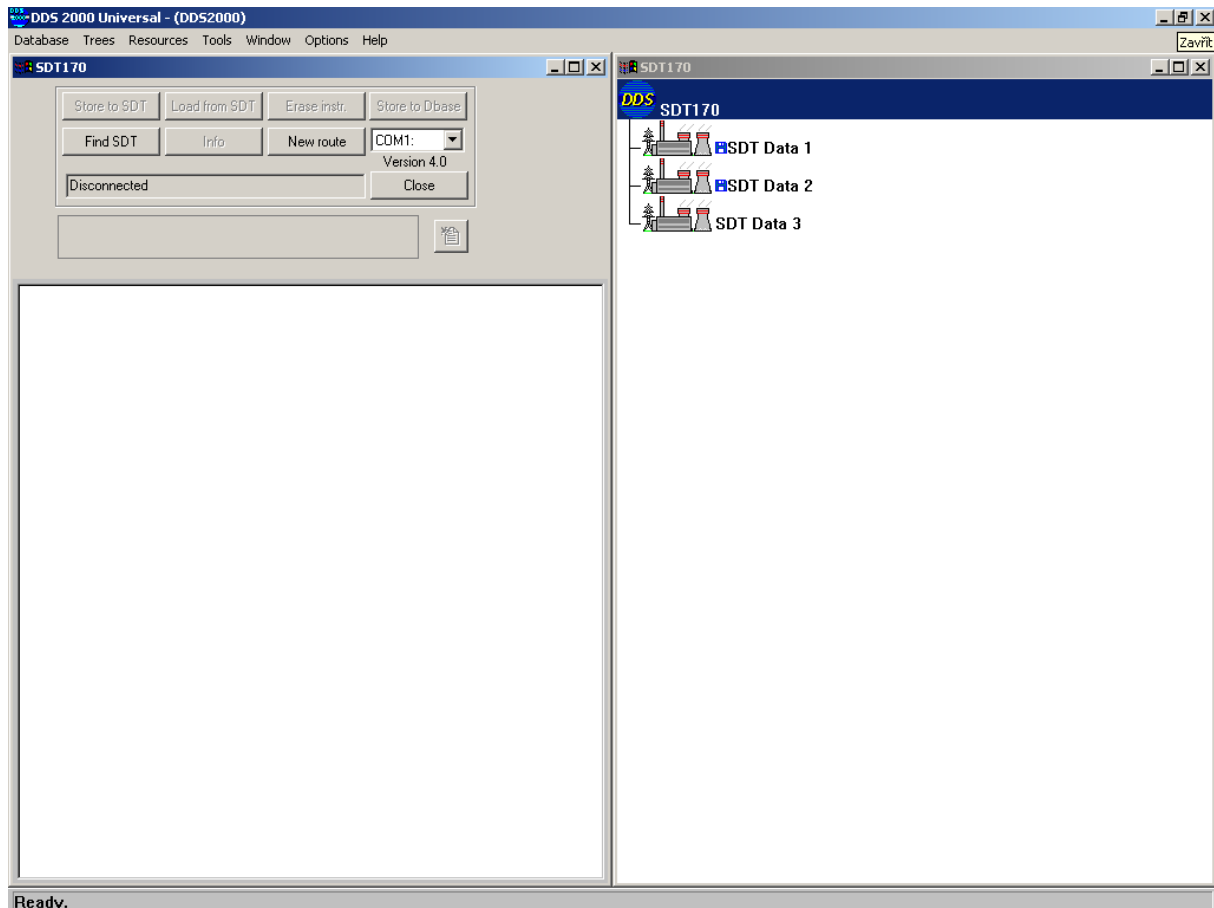
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Connection of the SDT170 instrument to the DDS2000 application

Prior to the work with the SDT170 in the DDS2000, open the SDT170 window. The instrument window can be opened from the main program menu (see the following figure).



The SDT170 window itself is as follows (the left part of the figure):



To work in the DDS2000 with the SDT170, it is suitable to open another window including data in a tree structure (see the right part of the figure).

Data transmission between the database of the DDS2000 program and the SDT170 using a project.

The idea of data transmission using a project is based on the assumption that the database already includes a data structure with data cells corresponding to the SDT170. This data structure is transmitted using the mouse to the instrument window and then from the instrument window to the SDT170. After transmitting the data structure, the instrument can be used to measure. These measurements can be retransmitted to the database for further evaluation using the instrument window. When transmitting data from the database to the instrument, a clear connection is established between the database items and the values measured in the instrument, a so-called project.

Details on individual data transmission steps:

- 1) As mentioned before, data-project transmission is conditioned by the presence of data structure in the database of the DDS2000, which contains data cells of SDT170 type. If measurement is carried out for the first time, such data structure must be created (for repeated measurements the already created structure is used). The manner of tree data structure creation is described in detail in the DDS2000 manual. Be careful when creating data cells for the SDT170. In the following dialogue window for data cell creation it is necessary:
 - to select the correct Instrument Type: SDT170
 - to click on Transfer to route
 - to select the appropriate sensor from which the measured values will be stored in the corresponding data cell – Subtype:

The screenshot shows the 'Data Cell' dialog box with the following details:

- Created:** 30.4.2002 13:32:40
- Data count:** 0 / 0
- ID:** 321
- Name:** Internal01
- Type bitmap:** <No item>
- Buttons:** Limit levels, Data reduction
- Instrument:** Type: SDT170, Meas. conditons
- Notes:** (Empty text area)
- Measurement interval:** Interval: 0, Day
- Last meas.:** 30.4.2002 13:32:40
- Next meas.:** 30.4.2002
- Transfer to route:**
- Process parameter:**
- Data:**
 - Type: Static value
 - Subtype: Internal US
 - Unit: dBuV
 - View unit: -
- Buttons:** OK, Cancel

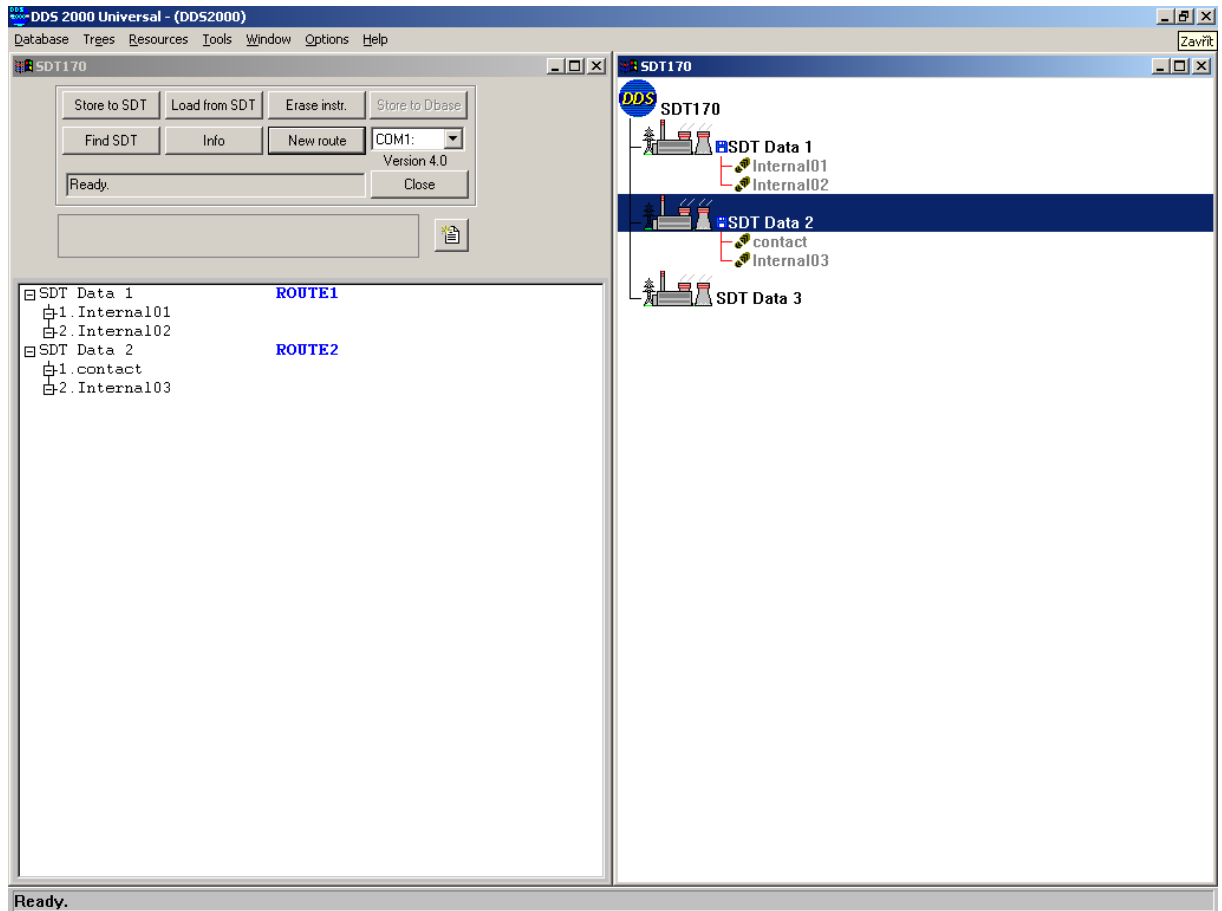
Notice:

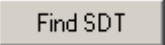
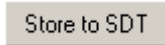
Value of relative danger level in dB gets on selected reference value (e.g. 10dB) and on competent value in % (e.g. 200% - relative alert high level). The value of alert high level is elementary product of both value (20dB).


- 2) Left-click on the prepared data structure and drag and drop it to the instrument window. If data cells are present in the data structure relative to the SDT170, a modified data structure is created in the instrument window (considering the specific data layout in the SDT170). You

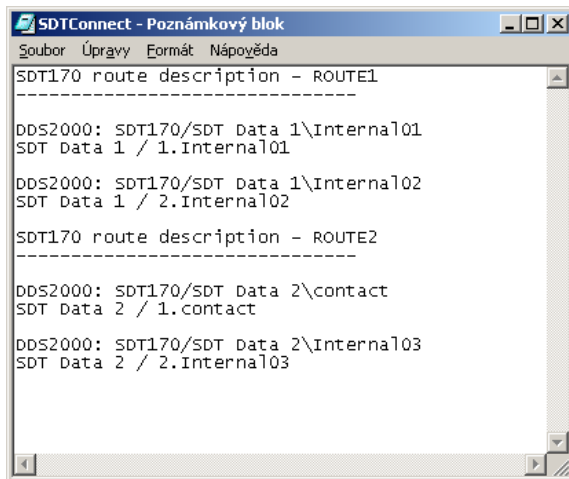
can transfer till 15 different data structures to the instrument window. These structures create 15 individual routes.

DDS2000 windows after data drag-and-drop:

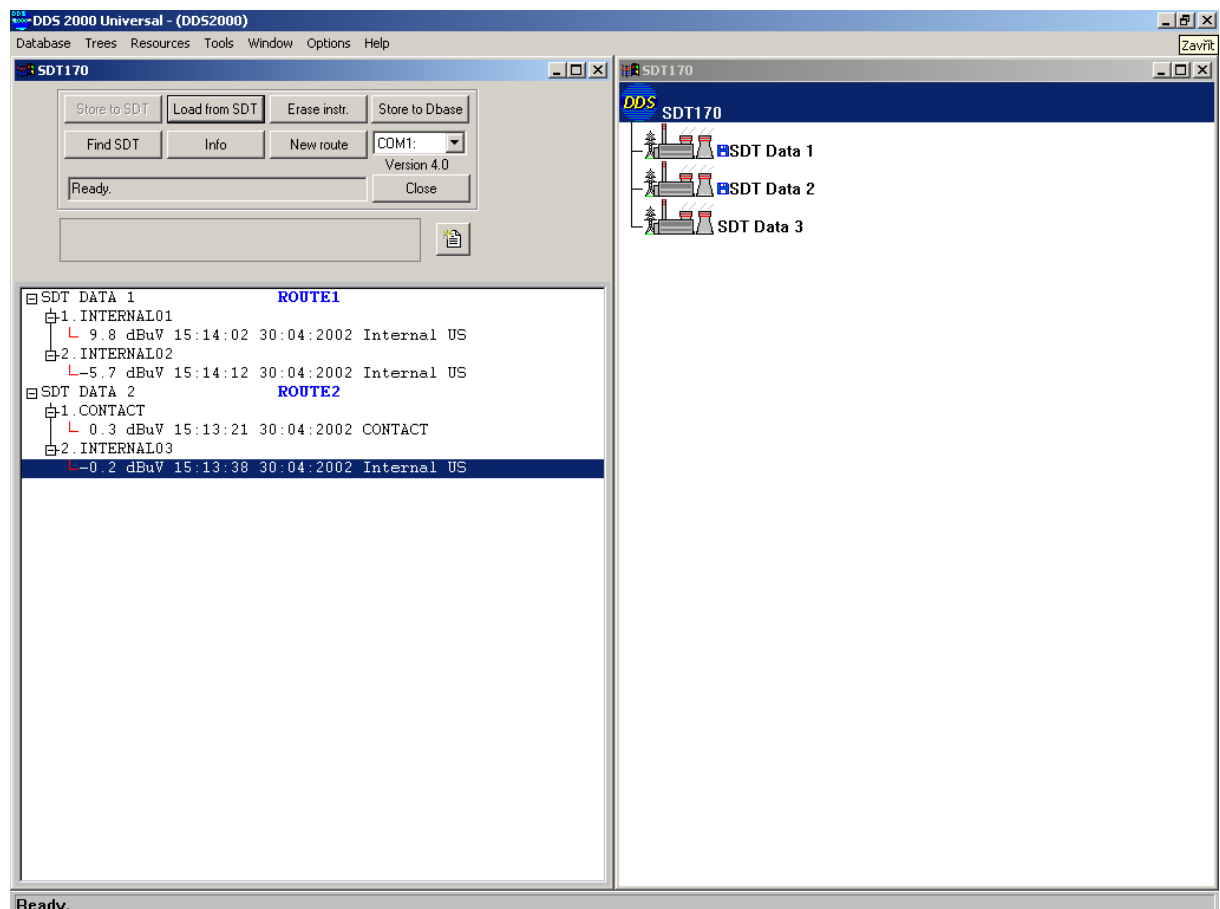


- 3) Now connection must be established with the instrument. By clicking on , instrument autodetection on all the available serial ports starts. If the instrument is on, connected to the PC and identified in the program autodetection, click on . The route from the instrument window will be transmitted to the instrument.
- 4) When the data is transferred to the instrument, then is available to display (or print) list which contains description of data structures conversion. This document includes the full address specification of data cell in the DDS2000 system and route position in SDT170 instrument.

This document you can display by click on button . See the demonstration below.



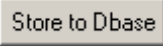
- 5) After a successful data structure transmission to the SDT170, measurement can be carried out using the instrument, where individual measurements must be stored in the instrument according to information from the description of data structure conversion.
- 6) After measuring the relative values, data can be transmitted from the instrument to a corresponding place in the database. Data are transmitted to the database in the SDT170 window. Connect the instrument to the PC, then click on **Find SDT** and **Load from SDT** in the instrument window: the tree structure with the measured data will appear in the instrument window.



Each individual measurement is displayed with next items:

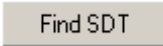
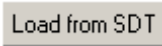
- the measured value
- the physical quantity of measured value
- time
- date
- used sensor

Example: -0.2 dBuV 14:21:24 30:04:2002 Internal US

The measured data are physically stored by clicking on .


Data transmission between the database of the DDS2000 program and the SDT170 without a project.

This transmission serves as a simpler option of the above transmission. Data transmission consists in a simple drag-and-drop of data from the instrument window to a particular place in the database tree structure.

- 1) In the open SDT170 window click on  and then on .
- 2) The instrument window shows a data tree structure whose parts can be dragged and dropped to the database tree structure of the DDS2000.


This manner of transmission however differs from the above mentioned transmission using a project. The measured values are not directly connected to the database cell and therefore the automatic merging of values measured by the same sensor and the identical data cell (a gradual drag-and-drop of individual values to a single data cell is also possible).

Further information on the database connection

 - this button erases all the data from the SDT170. Automatically data are erased from the instrument always prior to the storage of new data.

 - this button displays information on the SDT170

 - this button closes the window of the SDT170 database connection

 - this button deletes actual route from instrument window