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Data logging with LOGO! ..0BA7

You can record process values with the Data Log function. You can add the Data Log block like a function block to your switching program.

Notes:

LOGO! 0BA7 provides a buffer memory with 1024 byte for data logging. If the data saved in this buffer memory reaches 512 bytes, LOGO! automatically writes the data to the SD card installed in the SD card slot. If the data are generated faster in LOGO! 0BA7 as they are written to the SD card, you may experience data loss. To prevent data loss, enable the release signal for the Data Log function block with a minimum interval of 500 ms.

A data log file on the SD card may hold up to 2000 data records.

Only the latest data log file on the SD card can be downloaded from LOGO! to LOGO!Soft Comfort.

LOGO! creates a new data log file in the following three cases:
- If LOGO! has downloaded a control program in which the Data Log function was programmed with LOGO!Soft Comfort.
- If the data log file in LOGO! was not closed correctly when LOGO! was shut down in the RUN operating state.
- If changes to the control program in LOGO! have an effect on the data log configuration made in LOGO!Soft Comfort.

LOGO! writes the data log completely to the SD card if it is installed when the program is started (change from Stop to Run).

Application example

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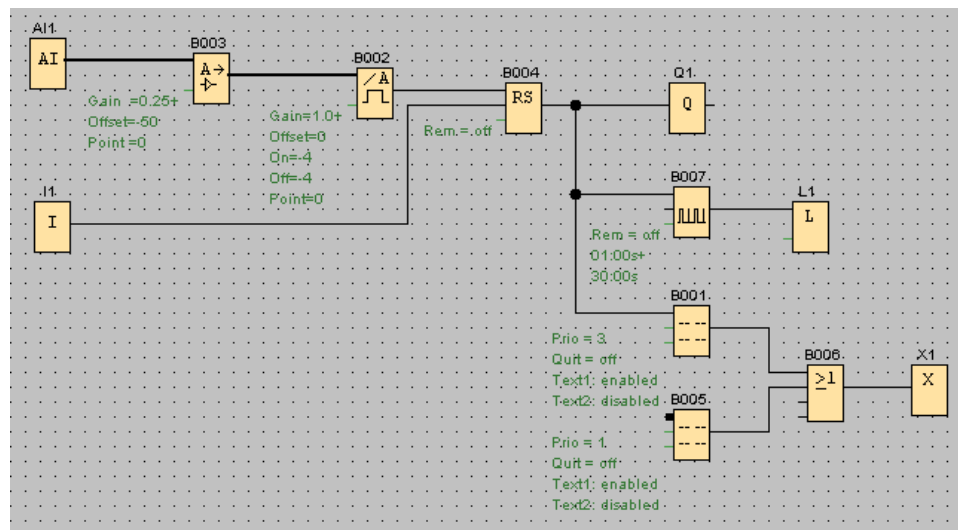
The example shows a wiring in which the cooling chain of a shipping container is monitored. If the permitted maximum temperature of -4°C is exceeded, a latching relay is set which addresses an output for a signal lamp; a pulse generator is enabled which sends out a signal to the Data Log function every 30 seconds so that it records the current temperature present at the analog amplifier. The excess temperature can be acknowledged with the button at I1.

Parameters
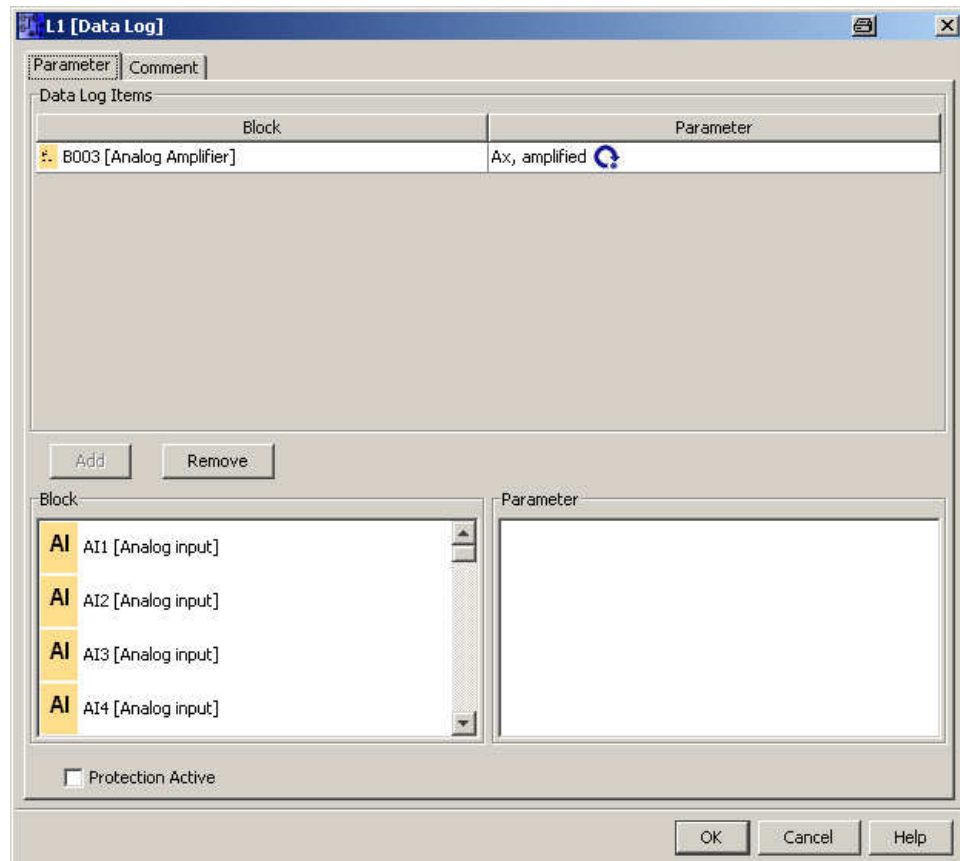
You can specify in the properties which inputs, outputs or functions you want to record as data log elements. Select the parameters of the required block and click "Add" to add them to the list of data log elements. You can select up to 32 data log elements.
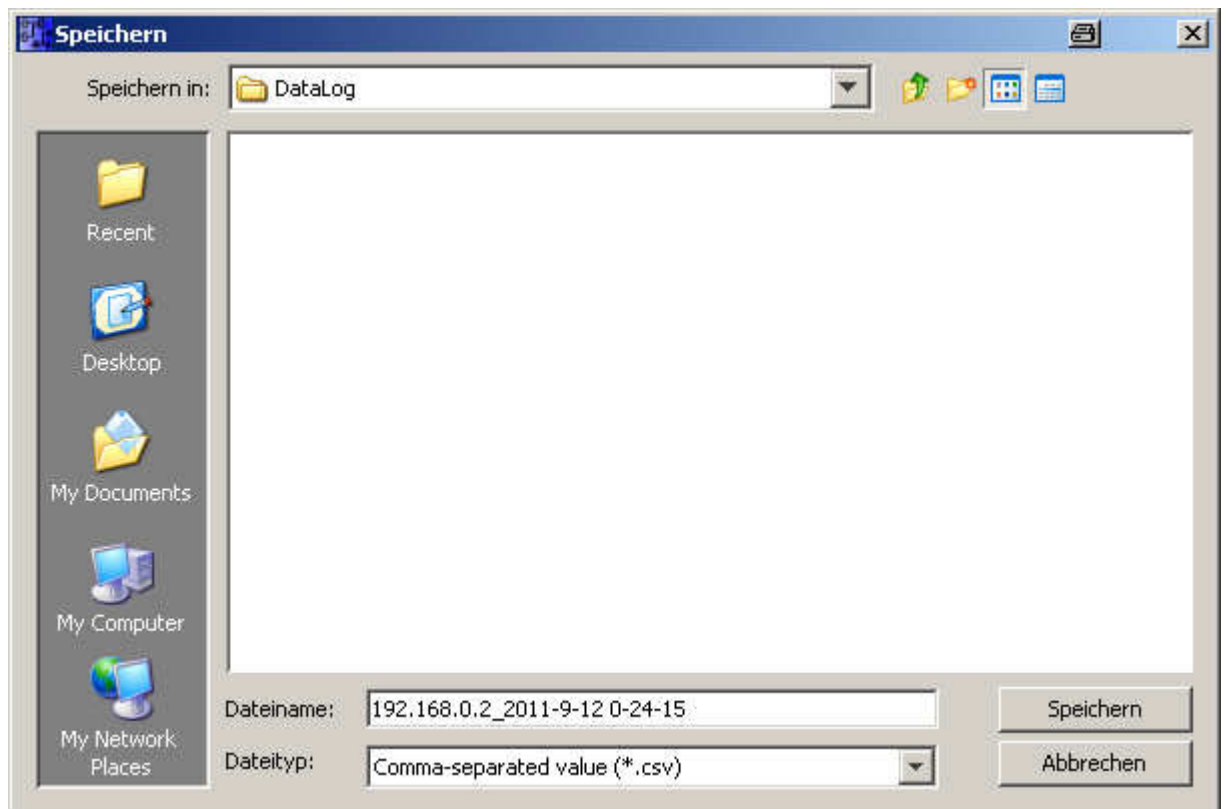
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Upload data log

From internal memory

Select "Tools; Transfer; Upload Data Log" to upload the data log from the internal LOGO! memory.
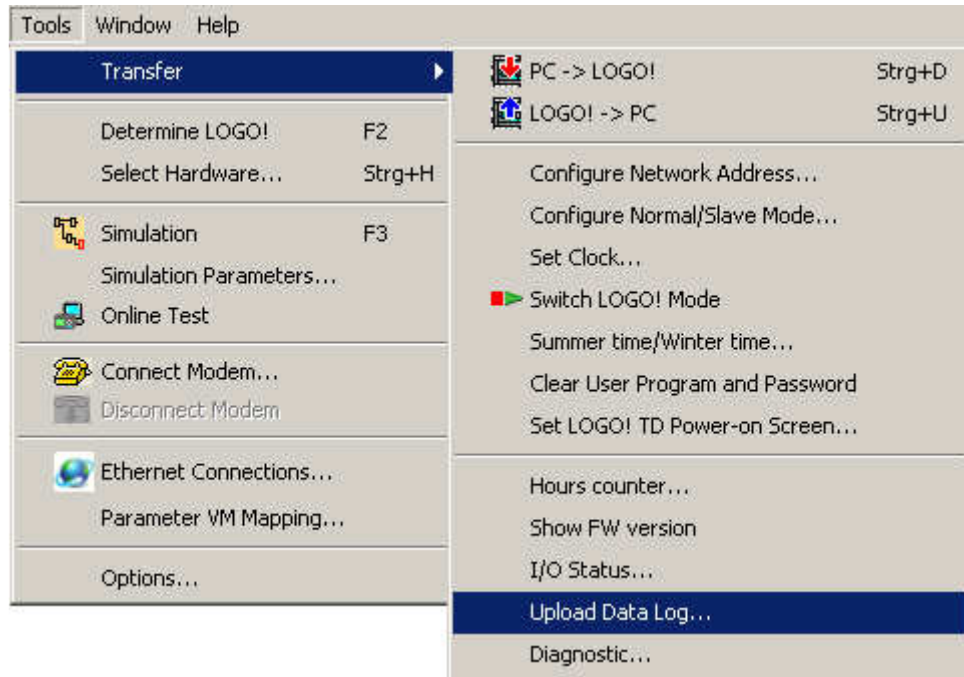

Save the log in the specified path.

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From SD card

To upload the data log from an SD card, set the base module to "Stop" mode and remove the card from the 0BA7. Insert the card in the SD card slot on the PC or into a card reader. The recording is now available on the removable storage device in a .csv file.
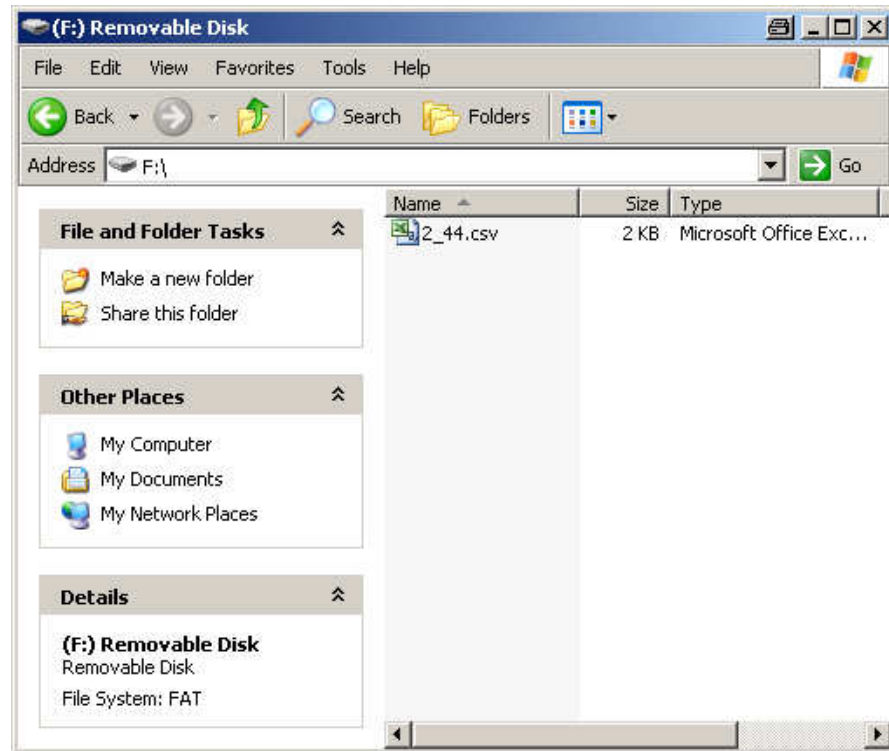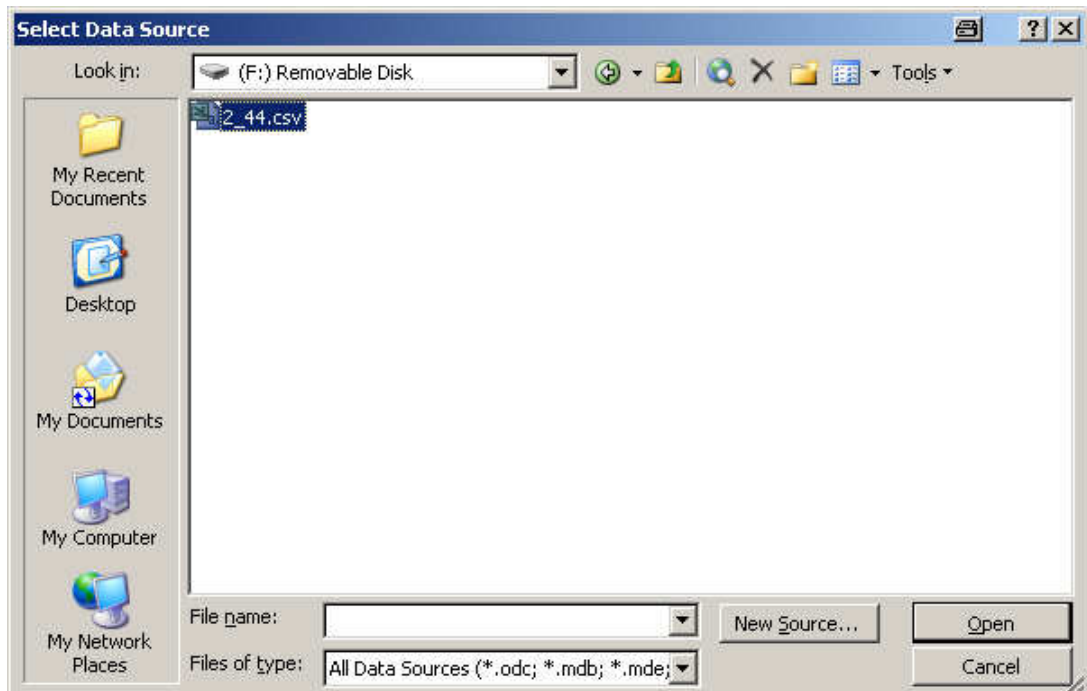

Importing data log in Microsoft Excel

Open MS Excel. Select "Data; Import external files; Import data" to add the log file.

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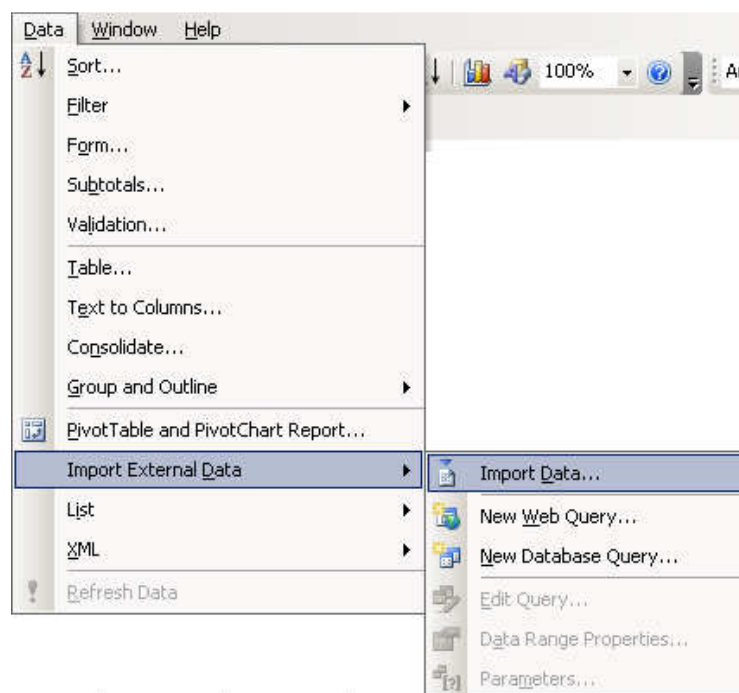
In the next step you decide which file you want to import. Select the path in which you have previously saved the file.
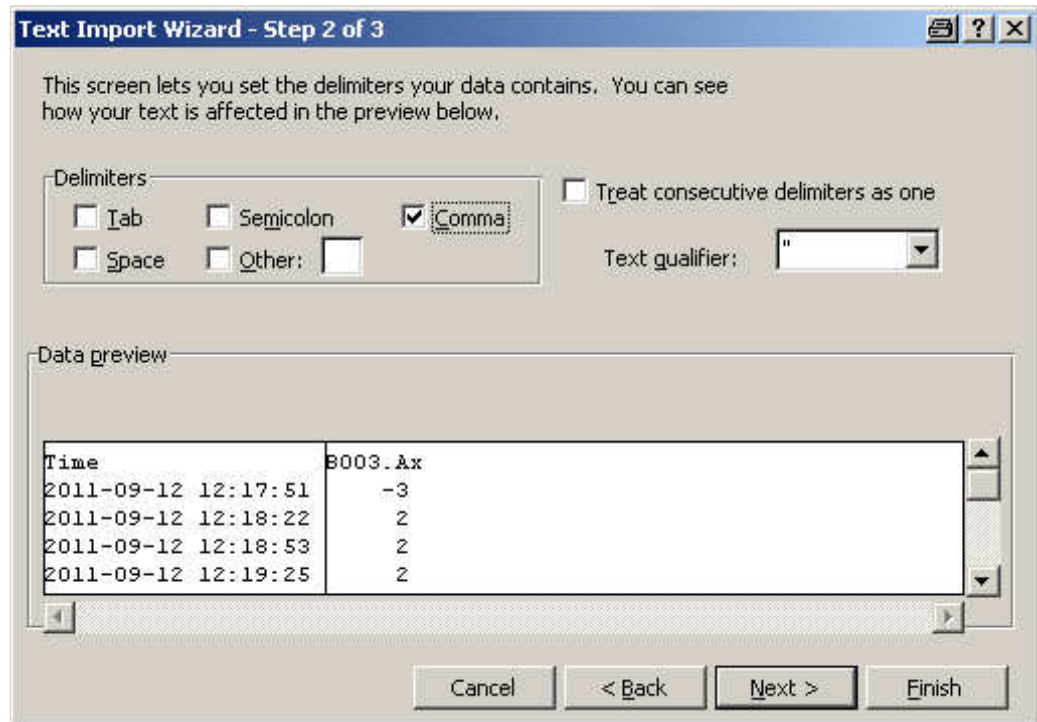
After acknowledgment with "Open", the Text Import Wizard opens because the data come with a delimiter. You can make different formatting settings for your log.

In the first step you specify how the data are separated in the original file. Confirm your settings with "Next".

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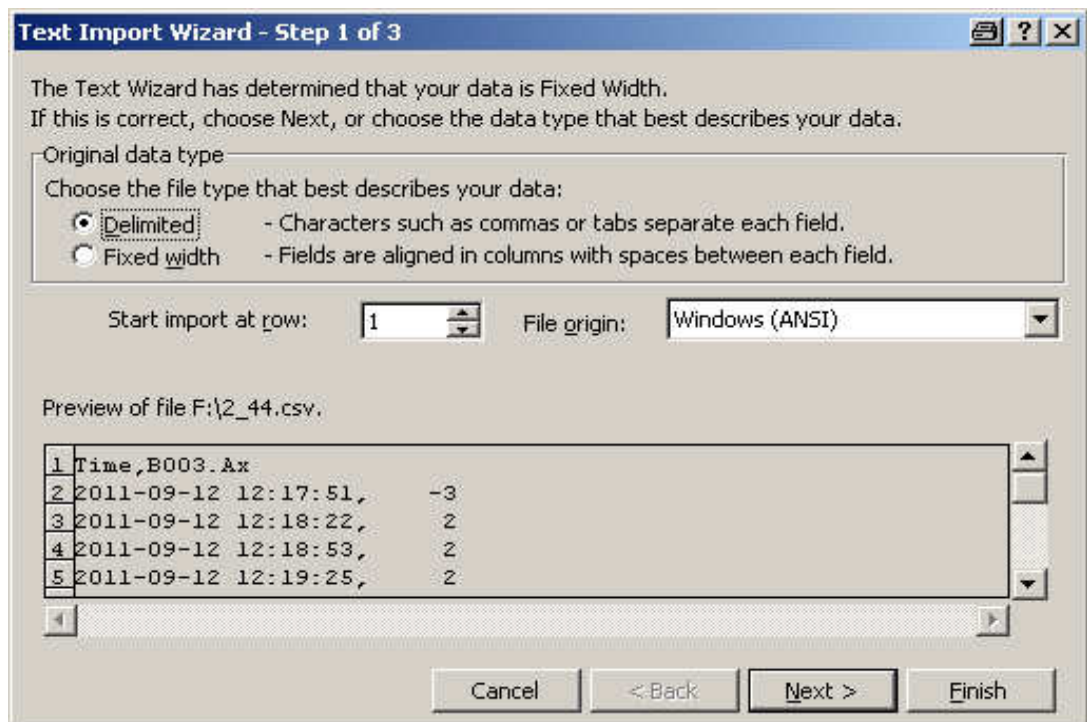
In step 2 you specify which characters were used as delimiters. Confirm your settings with "Next".
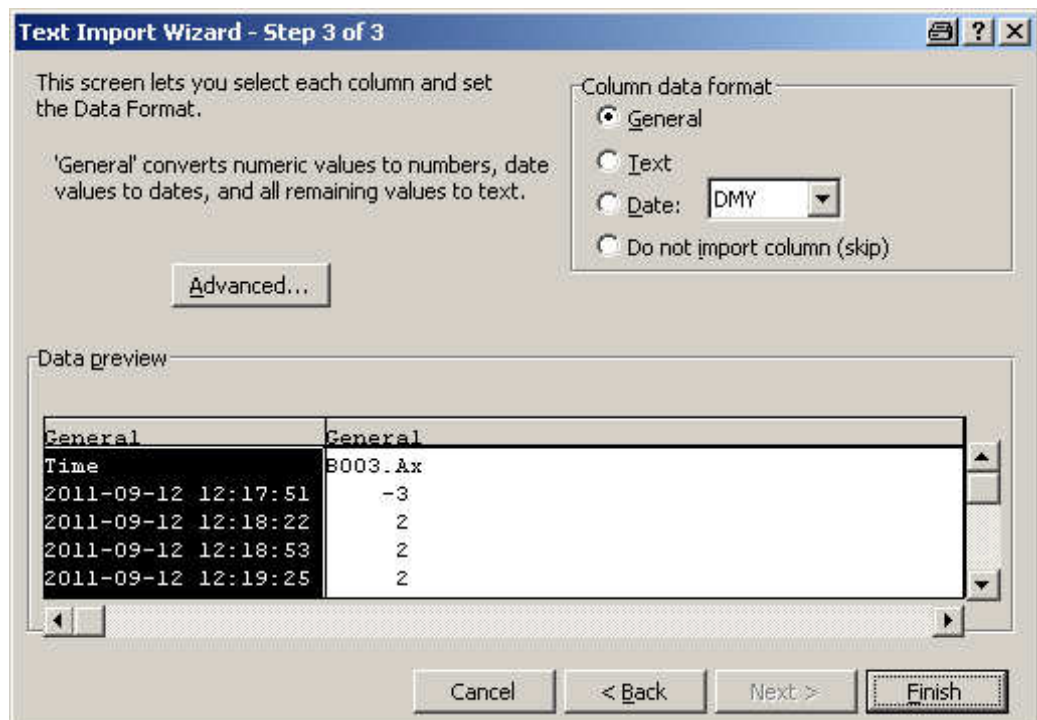
In step 3 you can assign data types to the columns. Close the wizard with "Finish".

You will now be prompted where you want to add the new data. Select the required target and and confirm your selection with "OK".

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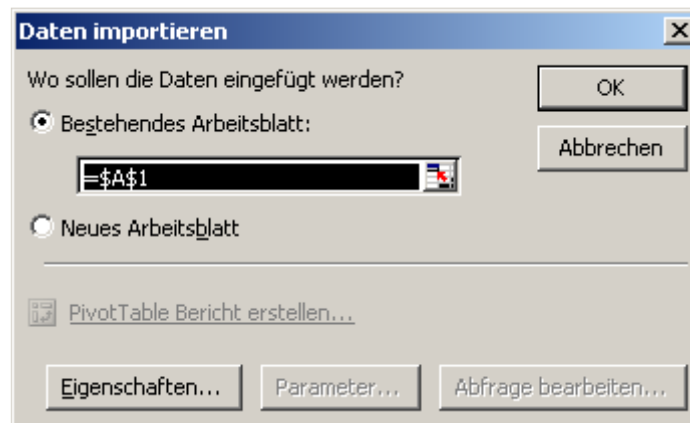
The data log is now added with separated columns into the spreadsheet and you can save it once again.