Adding a CNC data file name to a part label

After nesting, some parts are post-processed by shaping, drilling holes, adding edge banding and so forth. If these operations are performed on CNC-controlled equipment, you will probably want to put the name of a corresponding CNC data file onto the part label to make it easier for the equipment operator to load the right file for processing this part.

To print the name of a CNC data file on a label, you must meet the following two conditions:

1) The name of this CNC data file must be entered in the properties of each part being post-processed.
2) The name of the CNC data file must be added to the label template.

The name of a CNC data file in part properties

The name of the file can be assigned automatically if part data are passed to Astra R-Nesting from an external design application. If this application (e.g. Astra Furniture Designer) is capable of generating CNC data for post-processing, all part properties can be initialized automatically.

If the list of parts is entered manually or the names of CNC data files are not assigned when a list of parts is passed from an external system, the names of CNC data files will have to be entered manually.

To enter the name of a CNC data file, select a part in the list and use the "Part properties" command from the context menu. In the new dialog window, switch to the "CNC data file" tab (Figure 2) and click the "Add" button. Enter the name of the file and its description in the "CNC data file" dialog window (Figure 1).
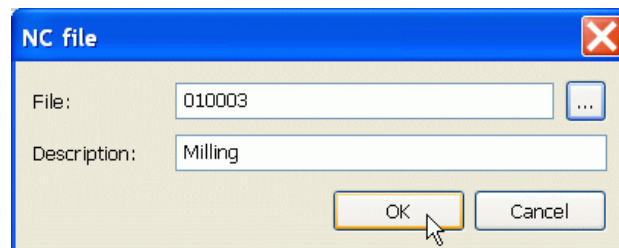

Figure 1 – Entering the name of a CNC data file

File description is an optional field that can be omitted, but if several CNC data files are assigned to one part (for different operations), a description will help choose the right one on the label. If there is only one CNC data file, we recommend not entering a description at all to leave more space for the part barcode (if that's how the name of the file will be represented).

The name of the file depends on the type of equipment used. If you do not have a barcode scanner that is used with your CNC-enabled machine equipment, enter an arbitrary file name.

If the file name is represented by a label barcode, this field will be read by a scanner, so it must be properly formatted:

- the name of the file must consist of Latin letters and numbers only.

- the name of the file must be specified without an extension.

- if you plan to use Code 128 set C (the most compact code), the file name must only contain an even number of digits, e.g.: 01, 0208, 100409.

By default, the program suggests naming the file according to the following template: NNMMMM, where NN is the sequence number of an assembly in the order and MMMM is the sequence number of a part in the order list. Please note that NN and MMMM are not the numbers of the corresponding assembly and part in the product documentation, but are only the numbers of these objects in the list. In some cases, these numbers may match.

For instance, the program will suggest naming the first part 010001, where 01 will be the sequence number of the assembly in the list and 0001 will be the sequence number of the part in the order list.

You can use any name based on your own naming system, which, however, must comply with the file naming requirements stated above. You can also click the "…" to the right of the "File" field and select an existing CNC data file for part processing.
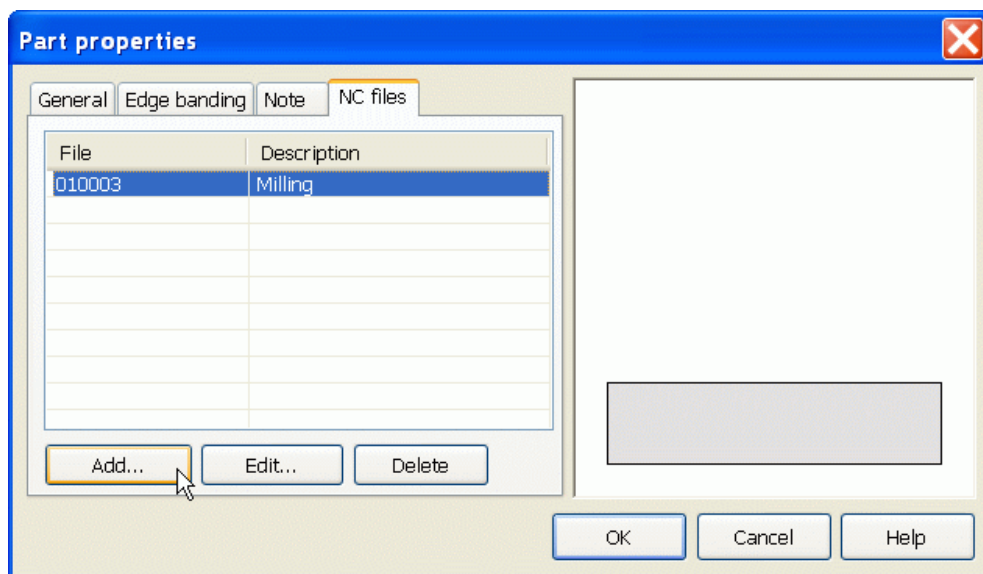

Figure 2 – A list of CNC data files in part properties

You can add a CNC data file for each post-processing operation. To change the name of a file or its description, select it in the list and click the "Edit" button. To delete a file, select it in the list and click "Delete".

Configuring the label template

The general principle of label creation and editing is described in the "How to do – Print labels" section of the program's help file.

When adding a new element to the current line of the label, select "Data":"CNC data files" in the list (Figure 3). If the name of the file on the label should be represented as text, no further configuration is required.

If the name of the file should be represented by a barcode, select Code128 in the "Barcode" field and pick the necessary code set: A, B or C. The choice of the code set depends on the CNC data file naming system used in your company. If the name of the file contains an even number of digits, select code set

C. In all other cases, code set B will be a good alternative, if your company does not have specific barcode format requirements.
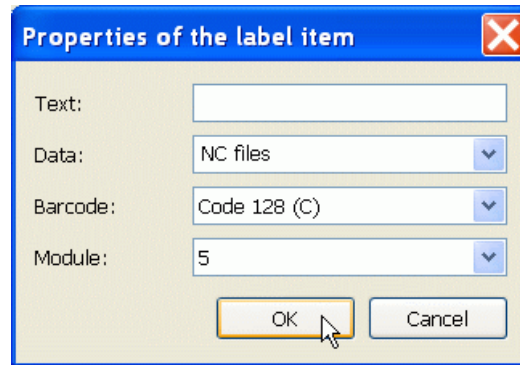

Figure 2 – Configuring the printing of a CNC data file name on the label template

In the "Module" field, select the value of the barcode module. This value affects the density of barcode elements and depends on the resolution of the barcode scanner to be used. Try experimenting with different module values to select the optimal barcode density.

If several control programs are used for post-processing (shaping, drilling, edging, all as separate processes) and the label should contain the names of several CNC data files, add them (Figure 3) in the order of their appearance in part properties (Figure 2). The "CNC data file" phrase should appear in the label template exactly as many times as there are CNC data files specified in part properties.

Web-page: http://www.astranest.com