



AV32



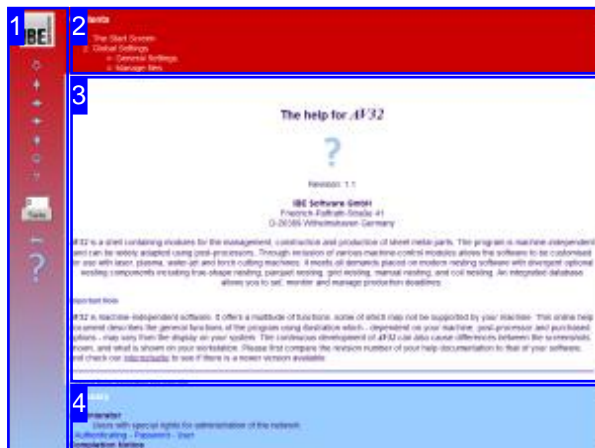
Online help SHEET METAL CENTER Plus

Admin AV32



Welcome to the help for AV32

General Notes on Navigation



Select Navigation Method

There are two methods to navigate AV32's help files:

1. **Interactive Navigation.**

This allows you to control which texts you view by hovering the mouse over the relevant hotspots in the illustrations.

2. **Consecutive Navigation.**

This mode leads you sequentially through each help page. All available details are shown one after the other. Click the 'Next page' button (right arrow) in the left navigation panel [1] to move one step onwards.

Important Note

AV32 is machine-independent software. It offers a multitude of functions, some of which may not be supported by your machine. This online help document describes the general functions of the program using illustration which - dependent on your machine, post-processor and purchased options - may vary from the display on your system. The continuous development of AV32 can also cause differences between the screenshots shown, and what is shown on your workstation. Please first compare the revision number of your help documentation to that of your software, and check our [Website](#) to see if there is a newer version available.

The screen is divided into four areas: the menu to the left with navigation buttons and the page number, which you can type in to jump to a specific side.

The content list is at the top, divided into chapters. The glossary is at the bottom, with key words and phrases linked throughout the help files. You can swap the glossary for an index list, as preferred. Simple click a keyword in either case to link straight through to a relevant help page.

The middle frame shows the current document. There are two methods to navigate the help files:

Interactive

or

Consecutive

The Start Screen

Launch and Exit the Program; Navigate the Program.



This is AV32's homepage. You can return here from any stage in the program by clicking the 'Home' button.

Click the IBE logo [3] to access the website of IBE Software GmbH via your active internet connection.

Exit the program by clicking [File],[Exit] [2].

Important Note

You must allocate material groups to your machines to avoid errors during your parts' production. Material groups are given properties which relate to their technical possibilities. These settings also help avoid damage to your machines. There is more information on material groups in the user's online help pages.

AV32 has many options for customization to individual users' needs. The program can be used in many ways with many different machines, often necessitating such customizations, e.g. by adding bespoke modules to the software. The online help describes the general options and settings for the program and database. These settings will sometimes affect the program's user interface, meaning that it sometimes looks different than in the help files' illustrations.

AV32 holds your data in an SQL database. The database can be held on a local workstation, or on a server in your network. You will require a Microsoft SQL Server (version dependent on your operating system) to host the database. There is more information on Database Settings in the corresponding help chapter.

This licensed software is dongle-protected. The software checks for a dongle with sufficient access at start-up and at intervals during the session. There is more information on dongles in the Individual Settings chapter.

The program can work in a predetermined mode by presetting determine settings. It will run in this version by appropriate markings. These restrictions can also be bound on a user.



You can access each module directly while working with AV32. . More information on the processing modules in the user's help files.

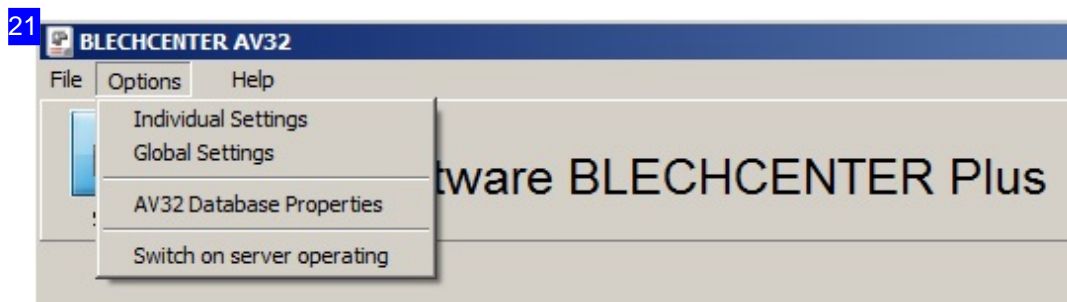


The 'Home' button always brings you back to this page.

The menu panel gives some options for controlling the program. Exit the program using the corresponding option under [File].

To make basic program settings or to adjust database connection settings, select [Options]. Here you can make individual settings for each user, and global settings for all users.

To get more information about the program, select [Help]. You'll also find information for program settings at startup. Select [Help][Contents]:Command Line.



To make settings for individual users, select [Individual Settings]. You can make settings about who can access which program modules and forms from their workstation.

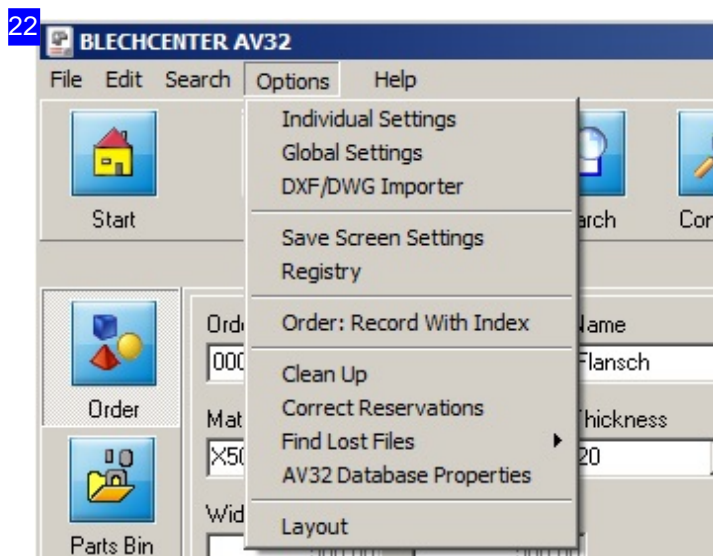
Click [Global Settings] to make settings which apply globally. Take care here, as settings you make will affect everyone using the program!

This helps avoid replication errors.

To view database information, select [Database Properties AV32]; a dialog will open showing that information.

Select the 'Server Operating' option to run the program in a mode so it works as service provider for external programs.

There are further options available later in the program.



The advanced options menu for this program. You MUST make a back-up before changing any of these settings, as they cannot be reversed!

- o Batch-Debugger: If you have selected optimizing nesting plans with batch processing, you can get an additional debug-window, to trace the nesting process. Select 'Batch-Debugger' and the debug-window will appear automatically when nesting.
- o Tidy-up: deletes all temporary files. More details in the dialog help.
- o Correct reservations: all order reservations are recalculated based on production data. Only the currently visible order records in the search filter will be corrected if additionally the <Ctrl> key is pressed, not the sheets.
This function requires all users to logout before it is permitted.
- o Find lost files: you can restore or delete 'lost' files here.
- o You can read and filter DXF drawings targeted and controlled, in the option 'CAD Import'.

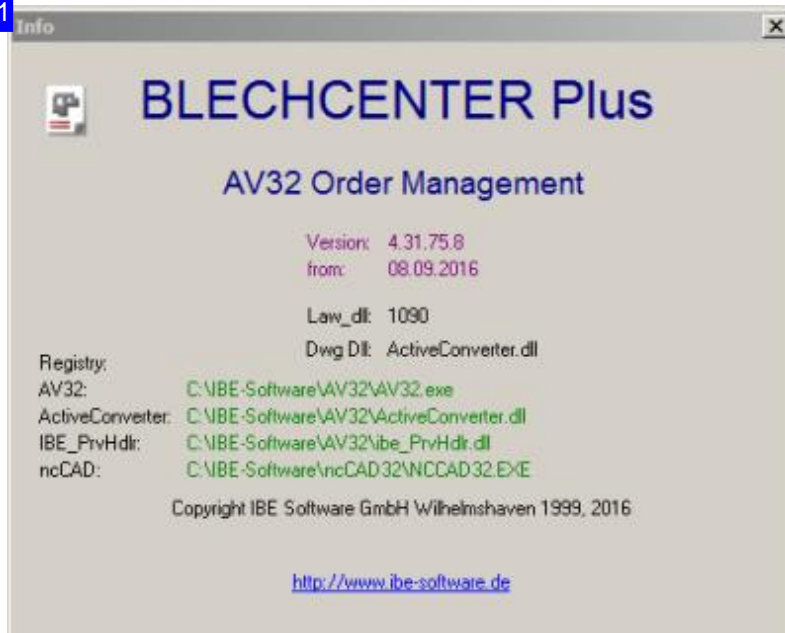


3



Click the icon to open a dialog with information 'About' the program, and a link to IBE Software GmbH's website.

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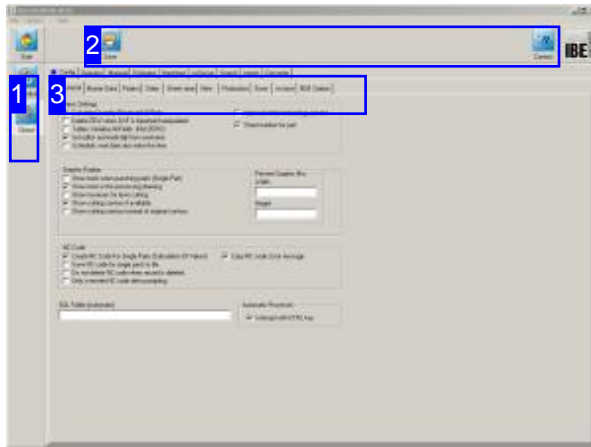


Info dialog for AV32 . The link leads to IBE Software GmbH's homepage; we look forward to your visit.

The software is dongle-protected. The software checks for a dongle with sufficient access at start-up and at intervals during the session. If you wish to add options or purchase a license extension, this can be done using IBE's licensing program. There is more information on adding permissions to dongles in the Individual Settings chapter.

Global Settings

Program Settings.



Settings which should apply globally are made in this screen, accessed by clicking [Options],[Global Options]. All users on the network who work with this software will be affected, receiving the same basic settings.

The most important and necessary settings relating to production can be grouped as follows:

1. Machines
2. Post-processors
3. Material Groups

You will find an overview of further settings in the 'General Settings'.

AV32 can be adjusted to your operating environment and individual requirements on individual and global bases. This screen allows you to make general global settings. You must be accessing the software exclusively to make changes to global settings.



The navigation panel gives general navigation control of the program's forms.

- o Use the top button to access the individual settings.
- o The 'Global' button always returns to here, the Global Settings screen.



The left button 'Save' saves the current settings for use now and next time. These settings will take effect again at next time you call the program.



The context display helps you to work with each of the individual forms. First click the right-hand button 'Context' and then the part of the current form you would like to know more about. If a description is available, it will be called in its own dialog.

The context help often gives information about the expected range or format of an entry.

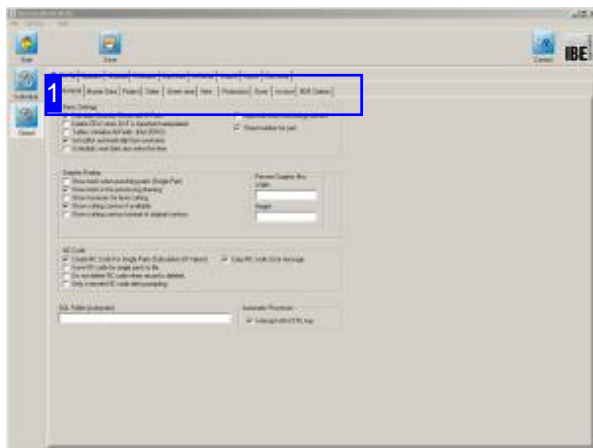


If a description is available, it will often give information about the expected data range and format of an entry.



Tabs corresponding to the program's various themes are shown in the top tab panel, with context-sensitive tabs below where you can make each setting.

General Settings



This chapter lists the most important tabs from the 'Global Settings' to help you find the relevant help item. The setting options for each form are shown in the context help .

The following list describes the cascading sequence of the program's settings tabs. You can use the index or contents lists to link directly to a relevant help page.

- o 'Config'
- o |--'General'
- o |--'Data'
- o |--|--'Customer'
- o |--|--'Part'
- o |--|--'Part History'
- o |--|--'Article'
- o |--|--'Cost Center'
- o |--|--'Certificate'
- o |--'Project'
- o |--'Order'
- o |--'Sheet store'

Fortsetzung 'Config'

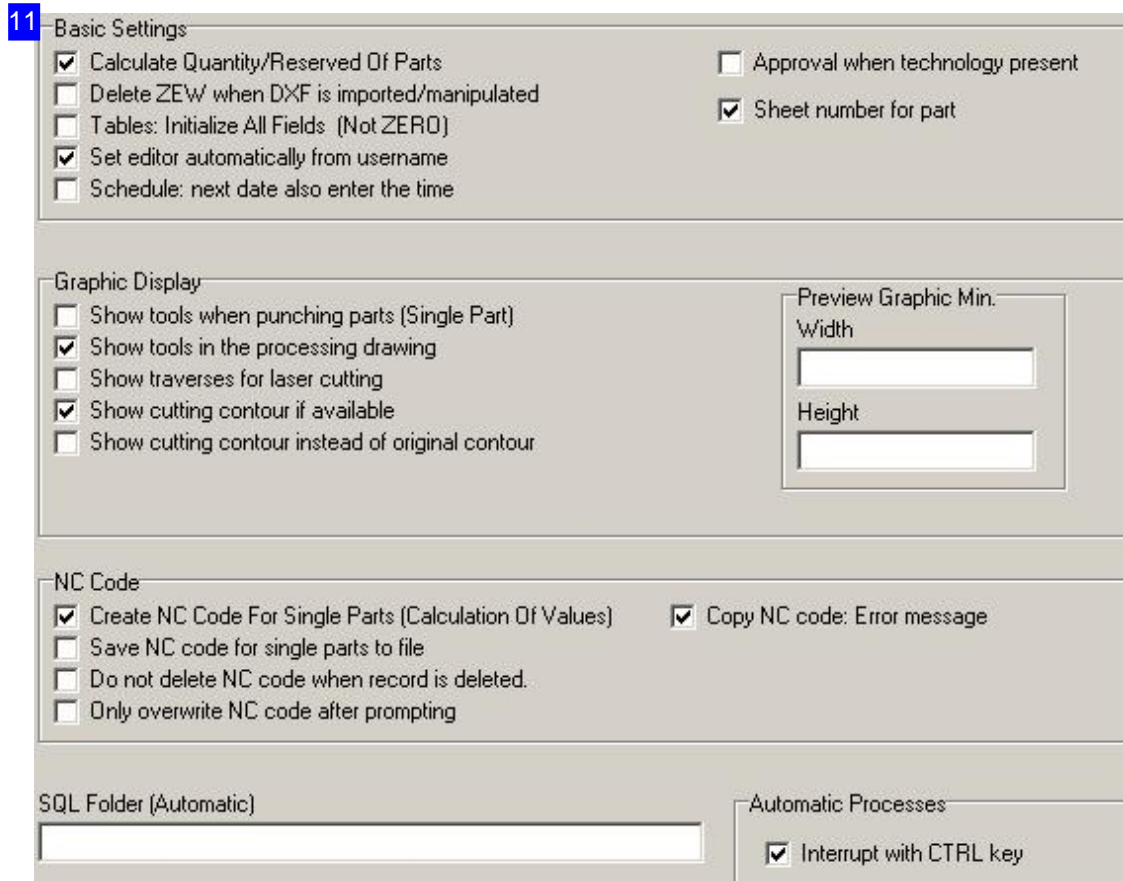
- o |--'Nesting'
- o |--|--'Nesting'
- o |--|--'Standard-Platten'
- o |--|--'Overview'
- o |--|--'Batch'
- o |--'Production'
- o |--'Store'
- o |--'BDE-Station'
- o 'User'
- o 'Material'
- o 'Estimates'
- o 'Maschinen'
- o |--'Machines'
- o |--'Data'
- o |--'Tools'
- o |--'Technology/Postproc.'
- o |--'Support'
- o |--'Nesting'
- o |--|--'Values'
- o |--|--'Batch'
- o |--'Estimates'
- o |--'Speziell'
- o |--|--'Disposal'
- o |--|--'Stations'
- o 'ncServer'
- o 'Search'
- o |--'Matching Data Entries'
- o |--'Set'
- o 'Import'
- o 'Reader'

Note that the tabs may not be available or may have other representations depending on the integrated (optional) technology modules.

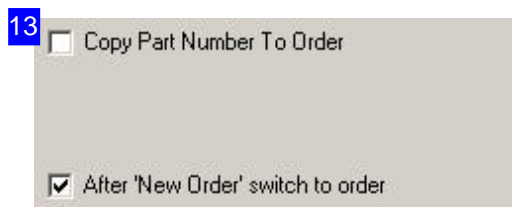
Some topics include only the setting 'Registered file'; in this case you will be redirected to the 'General settings for files'.



To make the settings in the various themes, select the tabs as shown below. The subsequent tabs are context sensitive, and will appear when the previous one is selected.



Select: 'Config', 'General'.



Select: 'Config', 'Master Data', 'Part'.



15

Part History Active

Max. Lines Displayed (0=All)

Show Production Plan

Select: 'Config', 'Master Data', 'Part History'.

17

Quantity Units

Stück
m
mm
cm
dm
m2
t
kg
g
mg
liter

Select: 'Config', 'Master Data', 'Article'.

19

cle Cost Center Certificate

Select: 'Config', 'Master Data', 'Cost Center'

The 'Registered file' button exists in many fields of work. It opens the respective dialogue 'Register files', to register the types of files for further processing in the system.

Particular types of files for AV32 are 'PrintAutoPdf' 'PostAutoPdf' und 'BDEStationAutoPdf'. Are these file types registered, they trigger certain functions in the work process.



21

Order Fields When Dissolving

Project Number In
 ...

Project Name In
 ...

"pos.no." "content no." (1.1 1.2 ...) in
 ...

Query For
 ...

Order Field=ProjPos Field

Check Pos Status (20 -> 30)

Dissolve contents individually (Cor

Project Registered Files

Project positions Registered Files

Call the project wizard when creating a position

Copy fields when inserting into contents

Select: 'Config', 'Project'.

When inserting field contents can be transferred to the project content. The field names must be given in the form of 'Project contents field name=Part field name' in this case.

23

Delete Automatically

Registered Files

"Direct Production Plan"

Adopt fields from the order

... = ...

Select: 'Config', 'Order'.



25

Delete Automatically

Duplicate Graphic

Select: 'Config', 'Sheet store'.

27

Part Identifier For Nesting (From Order)

Info field when moving to production

...

Check Combination Use filler parts Check Arcs

Use groups

Fields From Sheet Database

=

Internal contours smaller than width/height
Ignore when nesting

Adopt nesting values in the table

Temporary nesting list (security when program crash)

off

book back at start

book back at start and place in the nesting plan again

Remains after manual nesting

Place In Nesting Plan

Return according to order

Select: 'Config', 'Nesting', 'Nesting'.

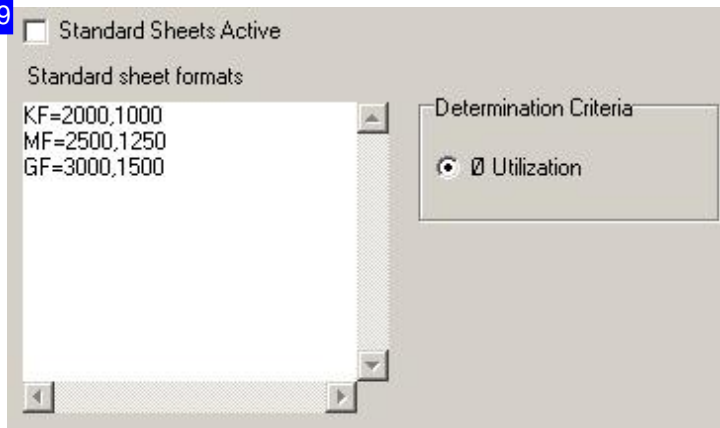
Orders and sheets are read back into the nesting plan at program start after a program crash and can then be nested again or be pushed back into the tables.

If it is your intention to use filler parts or groups, mark the appropriate checkboxes to release these features.

Mark the checkbox here to unlock the required functions to use filler parts or groups in the program.

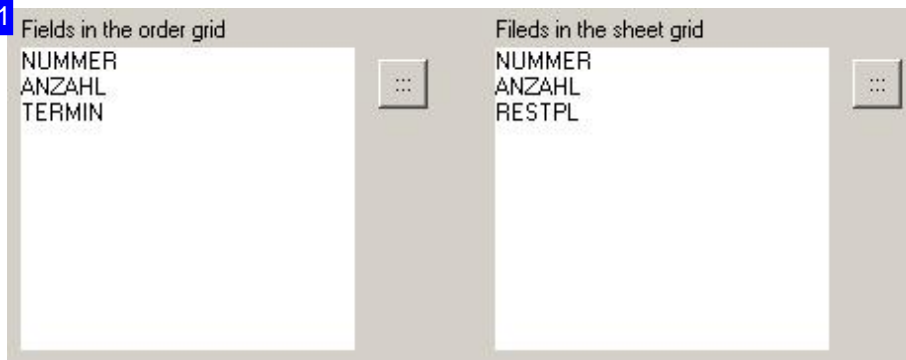


29



Select: 'Config', 'Nesting', 'Standard Sheets'.

31



Select: 'Config', 'Nesting', 'Overview'.

Here, the fields in the order- and in the plate grid are listed. Click on the button next to the field list for the desired grid, a dialog for the assignment opens.

32

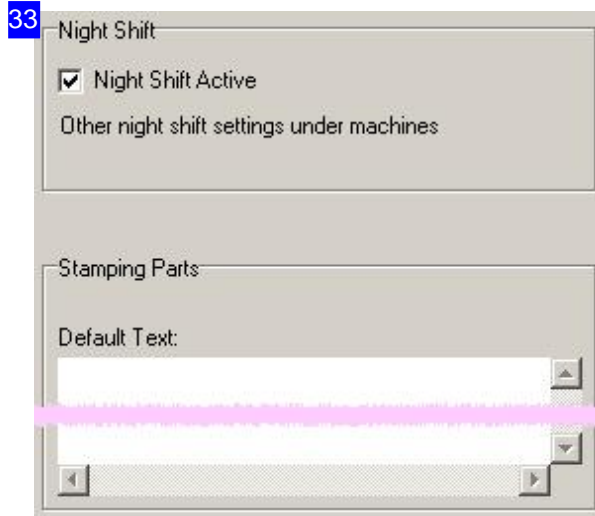
```
// =====
if (Sheets.Walzrichtung=0)
{
  >Sheets.Walzrichtung=1

  // erst in 1=X-Richtung und dann in 2=Y-Richtung
  Parts.Walzrichtung=(1,2)
  {
    // =====
    // === Konturschachteln
    // =====
    if (System.MethodExists(K)=1)
    {
      >Methode=K
    }
  }
}

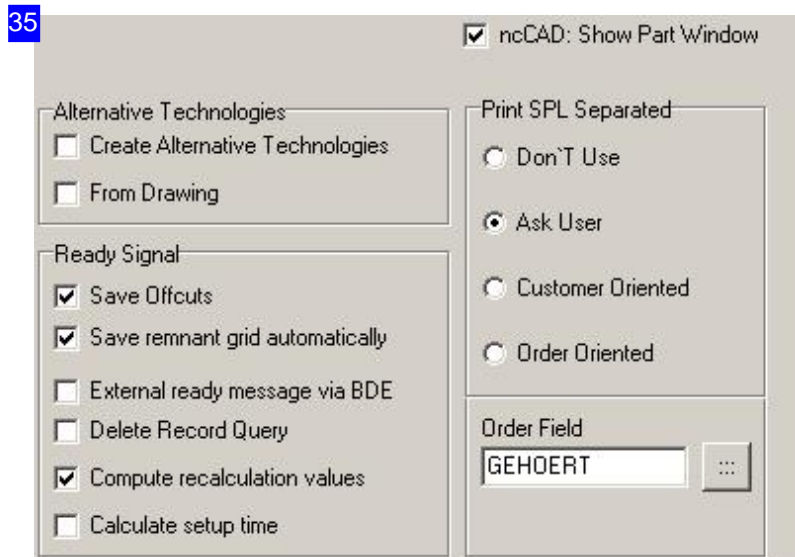
```

Select 'Config', 'Nesting', 'Batch'.

You can build and maintain a batch file for all machines, that has no batch file its own. You can also build a batch file at [Machine][Nesting][Batch] for any machine to optimize your nesting results.



Select: 'Config', 'Production' - here left side -



Select: 'Config', 'Production' - here right side -



Select: 'Config', 'Store'.



39 General Administrator Options

Reset Administrator Password

Safety, AV32 Start

All

All with AV32 password

User with Windows authentication

User with AV32 authentication

Navigation buttons: back, confirm, cancel, refresh

Select: 'Editor' - framework 'General Administrator Options' - to framework 'User in the grid'.

41 User In The Grid

User number Full Name for display

User has administrator rights

Restriction

no restriction

Run AV in production version

Run AV as service application

Run AV as DBViewer version

Limitation FTV

no restriction

Run FTV as DBViewer version

Select: 'Editor' - framework 'User in the grid' (Selection from the table of editors) -



43

Material Management

Part Identifier For Estimates Nesting (From Part)

Complete calculation automatically

Sales Texts

Show Sales Texts

\$(KAL.MACHINE.VKTEXT)
\$(KAL.PLGCALC.VKTEXT)

Select: 'Estimates'.

45

Machine name

Standard Machine

Server operating

Compute Sheet Contour

Nesting test on rest sheet (automatically remove rest sheet)

Zero point

Bottom left
 Bottom right
 Top left
 Top right

Machine Size

X
Y

no sheet use

Machine Schedule

Max Runtime Per Day (Min)

Minimal minutes for plan interrupt (0=never)

Select: 'Machines', 'Machine'.

Machine Size: Equivalent to that in night mode and specifies the size of the working area of a machine.

No sheet use: When this option is selected, no sheets from the sheet stock are used for nesting. It is then nested in a size corresponding to the machine size. This option is intended for machines on which



the parts are not cut, but are only nested to refine them e.g. when covering with foil.

No technology use: The relationship between machine, material and sheet thickness is broken with this selection. You can then select the material, even if no sheet thicknesses is available for the material group.

Server operating (optional): A machine is used in the server mode with his selection. If an AV32-workstation is set to server mode (see Server mode), only machines are considered for which this option is turned on.

47

Max. Tool Count (Punching)

Magazine

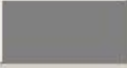
Magazine Difference Management

Compare station=number

Select: 'Machines', 'Tools'.

49

Show support (nesting)
 Show support (production)

Support Color 

draw support with

Support Start-Point (X)

Support Start-Point (Y)

Support Point Size

Support Distance (X)

Support Distance (Y)

alternative show Dxf

Fill DXF while drawing

Select: 'Machines', 'Supports'.

You can define support points for a machine, on which the parts rest. The support plan can be read and

edited as DXF file. Select the context help for more information about the support points.

51

Preferred nesting method

True-shape

Rectangle

Parquet

Manual (ncCAD)

Manual

Use only this layer for DXF nesting

Can process mirrored parts

Nest Only Laser Paths

automatic part stamping

Mark

none also zoom

Part Index nest

Additional index Service

Sequential no.

Filename

Denotation

Max. torch count Min. torch offset Rounding Torch Offset (0.0, 0.01, 0.1 ... 1.0)

In server mode, these fields must match (empty = MATERIAL,BLECHDICKE)

Additional nesting parameters

Use Nesting Values

Select: 'Machines', 'Nesting' (left side).

You can specify a factor for the font height in the field 'marking' for labeling the parts.

You can also specify for a machine, that parts become automatically the appropriate stamp text when a nesting plan includes text boxes. Mark the checkbox 'automatic parts stamping'.

Stamping parts can only be done by calling the stamping-dialog in the manufacturing process at a later time.

53

Workpiece clamp dead zone

Left

Right

Top

Bottom

Select 'Machines', 'Nesting' (right side).



54

```
// =====
if (Sheets.Walzrichtung=0)
{
>Sheets.Walzrichtung=1

// erst in 1=X-Richtung und dann in 2=Y-Richtung
Parts.Walzrichtung=(1,2)
{
// =====
// === Konturschachteln
// =====
if (System.MethodExists(K)=1)
{
>Methode=K

```

Select 'Machines', 'Nesting', 'Batch'.

You can build a batch file for any machine to optimize your nesting results (see [Config][Nesting][Batch]).

55

Cost Center (Clear Designation)

Part Distance Re-nest plan

Sales Text

Select: 'Machines', 'Estimates'.

57

Enter/Check Disposal

Select: 'Machines', 'Special', 'Disposal'.

59

Check Stations

Select: 'Machines', 'Special', 'Stations'.

61

Path For ncServer

Select: 'ncServer'.



63 Action when executing "Corresponding Records"

Active List For Searching

Customer

Parts

Order

Sheet store

Production

Fields ...

MATERIAL
 BLECHDICKE
 POSTPROZ

Also Search In

Customers

Parts

Order

Sheets

Production

Always show empty fields

Search Color

Determine

Delete

Select: 'Search', 'Matching Data Entries'.

65 Activate combination of parts on a form

Common Field Name

...

Common Field Name (Production)

...

Part caption from field

...

Select: 'Search', 'Combination'.

67 Import record from files. (Divide the filename into the fields)

Template

▼

New

Delete

Rename

Create Example

Help

Field Name=Definition

Select: 'Import' frame 'Import record from file' - Configurations can be saved for CSV-Import of recurring files with the same structure. These includes the settings and the field mappings. Different configurations of CSV imports can be used repeatedly in a simple way by selecting the allocation

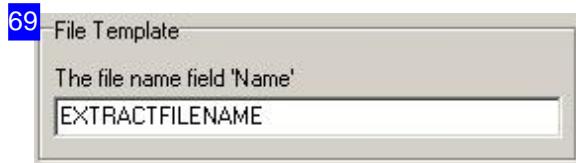


pattern.

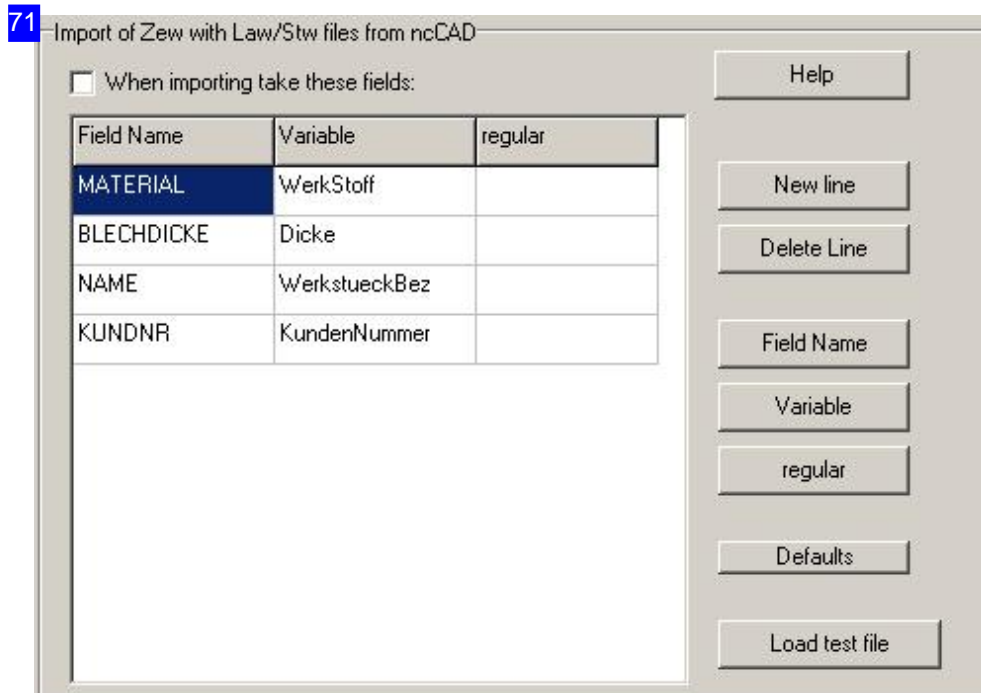
The listing in the field names list is editable. The definitions by a plurality of control codes can be formatted appropriately, because CSV exports from the different programs do not keep the given standards and interpret the fields individual. Exports of different operating systems can also have different line endings.

Click on the 'Help' button at the top right, a help dialog opens in which the control characters are explicitly listed and explained.

Note: If additional 'Data fields occupy from DXF file' is active, the fields identified here are overwritten.



Select: 'Import' frame 'File Template' -



Select 'Import', frame 'Import from .. ncCAD' -



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The converter should convert files with following extensions:

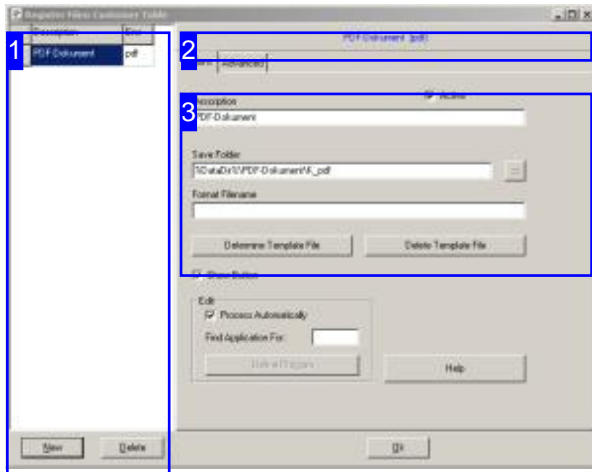
Import Using ncCAD Help

Description	Default	File Extensions
MegaCad CDL	CDL	
DIN 66025	DIN	cnc,nc
Essi Code	LOS	los,s70,mpg
HPGL Plotter Files	PLT	

Select: 'Converter'.



Manage files.

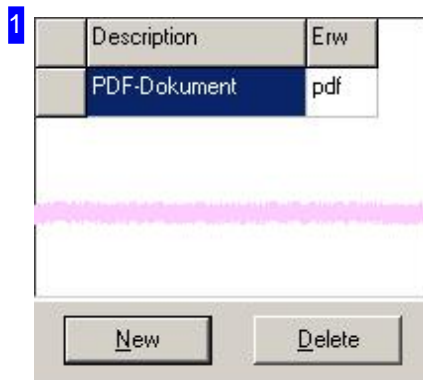


You can define and maintain all files you want to offer for work in this dialog. All files which are held in the system are displayed in the list [1].

Click on the 'Help' button at the bottom right [4] for further information.

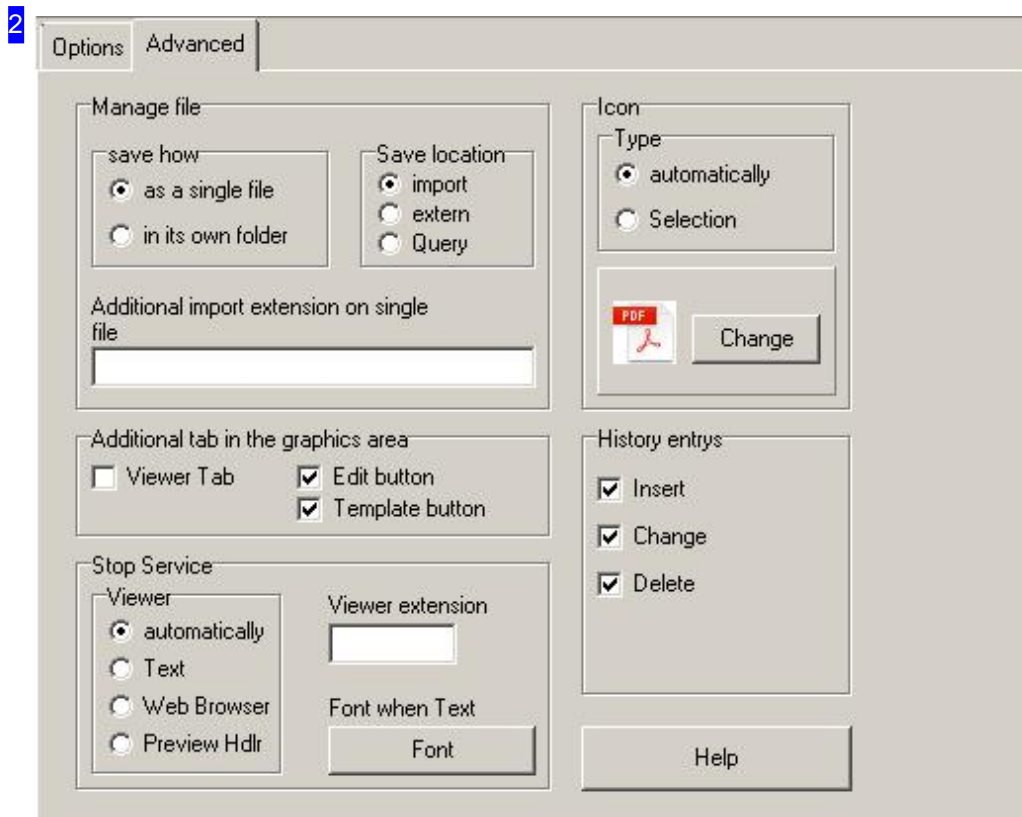
Select 'Registered file' to maintain registered files in the appropriate form.

For processing, all files must be registered in the appropriate forms, so that they can be offered for selection. If this is possible, a button 'Registered file' is always offered in the appropriate form.



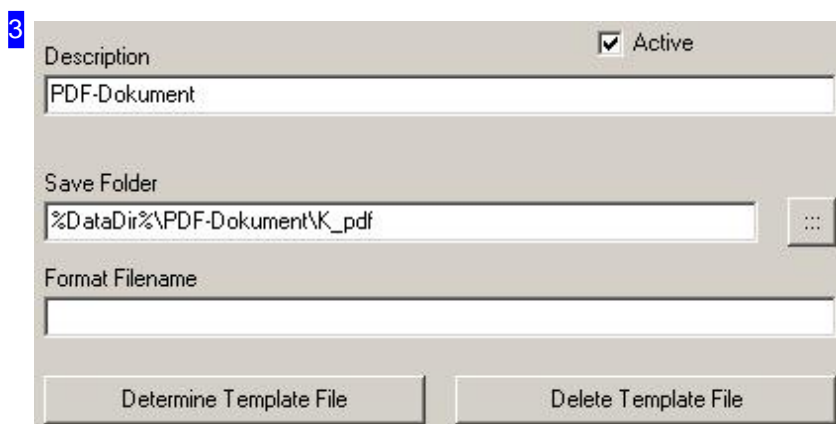
This table shows all file types which are defined and registered in the system. You can create new entries or delete selected entries with the buttons below the table.

Select an entry in the list for editing.



Determine the rules for the management and display of project work under the tab 'Advanced'.

Certain file types can be displayed as an additional tab under the graphic window in parts, order and project form, for everything that can be displayed from an internet-explorer like text, JPEG, BMP or HTML. Further viewer DLLs can appear here for other types of files. In addition, an 'Edit' button and a 'Template' button will appear in order to maintain the appropriate file. You can activate this under 'Additional tab in the graphics area' at the respective form.



Enter the identifier for the file type in the field 'Description'.

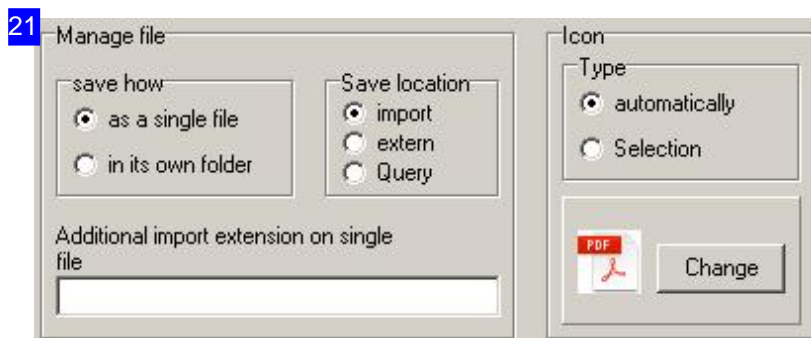
You specify the folder for storing the files in the 'Save folder'. Here, the path is determined by the



variable %DataDir%. This folder is automatically set by the program and should only be changed by administrators. Click on the selection to the right of the input field, a dialog opens and shows the memory location. To ensure a secure data storage, select only folder here that are in the file structure of the program.

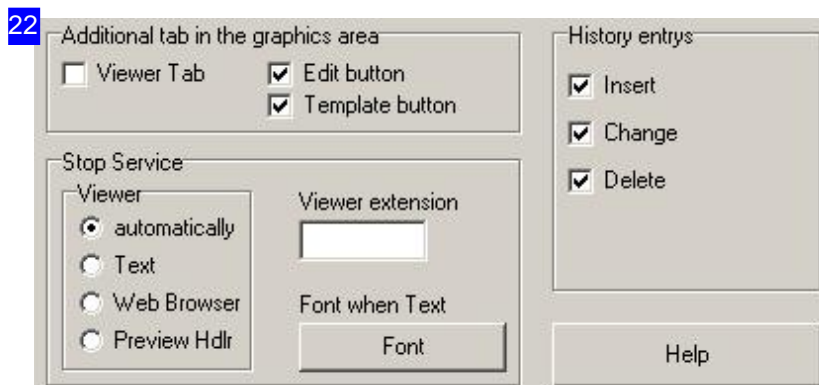
You can enter a formatted filename that matches the format rules under 'Format Filename'. If there is no entry, a standardized 8-character file name is formed with the given extension. These changes should also be made only by administrators.

You can specify a file to be used as a 'default' for an application when it needs a start file with a click on 'Determine Template File'. This can be very useful for text processing programs in order to obtain a uniform appearance. Use the 'Help' button for more information.



Specify another extension to be imported with in the adoption of a single file in the frame 'Manage File'.

You designate an icon for an application on the right side. With 'automatically', you specify that the symbol is selected by the system, depending on the individual application. Would you like to use a particular symbol, take 'Selection'. The use then depends on the format in which the files are used.



You can select a view in the 'Viewer' frame for the file display. If a file can not be displayed, the system looks for an appropriate image. Enter the extension of the image in the 'Viewer extension' field if an image is present. You can define a font style in the dialog for the presentation in text form, click 'Font when Text'.

You can make a choice, when for a file that leads up a history list, this should also be applied, in the right frame. Here, you specify the conditions under which a history entry is made.

23 Register new data type

Enter an unique name (e.g. 'WordDoc') min. 5 characters

Enter File Extension (e.g. 'DOC')

These entries cannot be changed subsequently!

Enter in the list

Select pre-defined types

Enter a distinctive identifier in the upper field and the corresponding extension in the lower field in order to generate a new entry. You can also select a predefined type with the lower button. Note that the entries can not be changed later. Press on 'Enter in the list'.

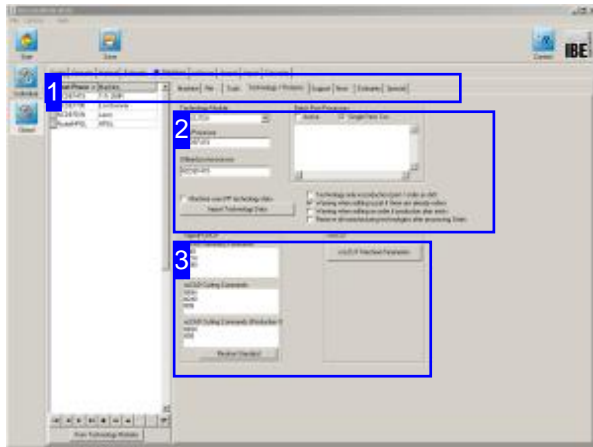
If you create an object named 'PrintAutoPDF', a PDF file will be written automatically every time you print.

'PostBus Pdf': This file is generated from the corresponding form each time you save the record. This can be applied to all tables.

'BDEStationAutoPdf': These can only be used in production. If you create a production schedule and if you change the number of parts, a PDF file is automatically written that contains a label for each part. These can be printed out as needed and put on the parts.



Machine and Post-processor Settings.



Machines and their corresponding post-processors and the material groups allocated to them are interdependent. These relationships are given full consideration in AV32 . You must allocate material groups and thickness to your machines, to avoid errors during part production. The material groups have properties relating to the technical possibilities of each material. Correct use of this feature protects your machines against damage or destruction.

This screen allows you to make settings for machines and post-processors. All users working with the software on your network will be affected by changes made here, so all users' settings will be correct.

You can import existing technology data from CSV files.

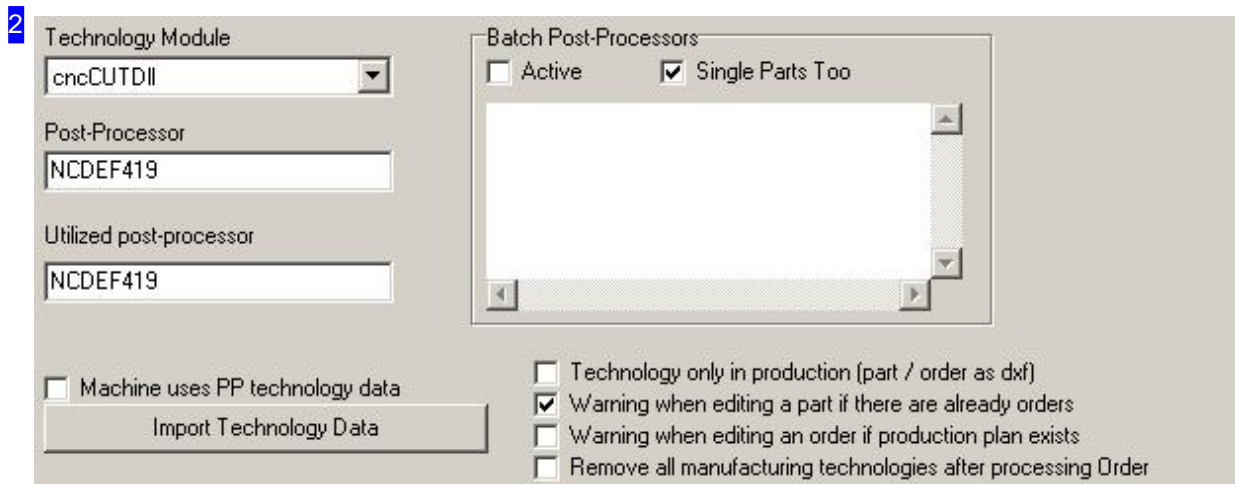
You can also select your technology module in this screen. Options are cncCUT, DXF or ncCAD. The corresponding DLLs must be loaded and enabled in the dongle. If a DLL is not available, the corresponding module is not displayed.

You can examine your current program versions and download missing programs with the IBE dongle program at [Options] [Download IBE programs and updates]. Assign a technology module to a machine from the list on the left.

Then you can assign a technology module to a machine from the list on the left.

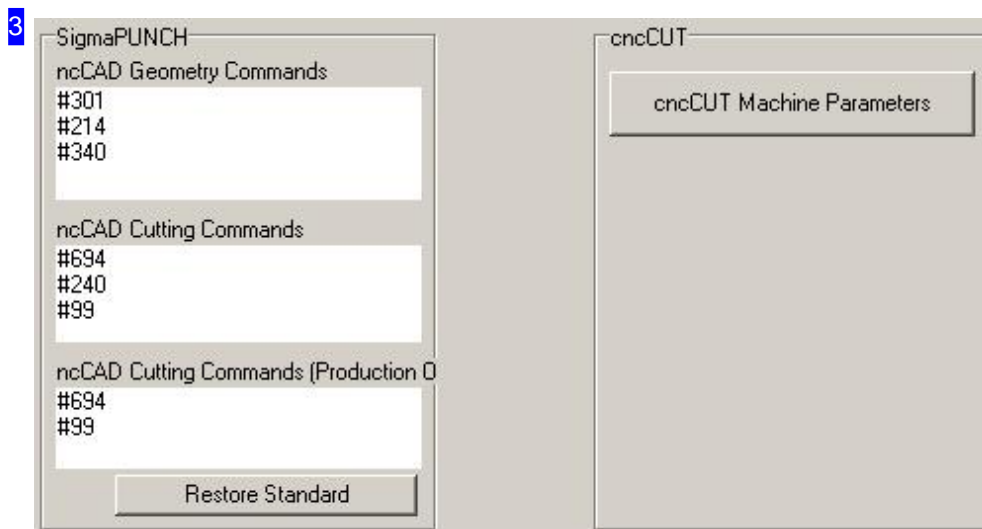


To make settings for your machines and post-processors, select 'Machines' at the top and 'Post-pr.' at the bottom.



The 'Technology Module' selection list allows you to select an optional technology module. The selected module must be installed on your system and released in your dongle. The module actually used is shown here.

The bottom button opens a dialog for importing technology data from a CSV file. More on that in the coming chapter 'Importing CSV Files'.

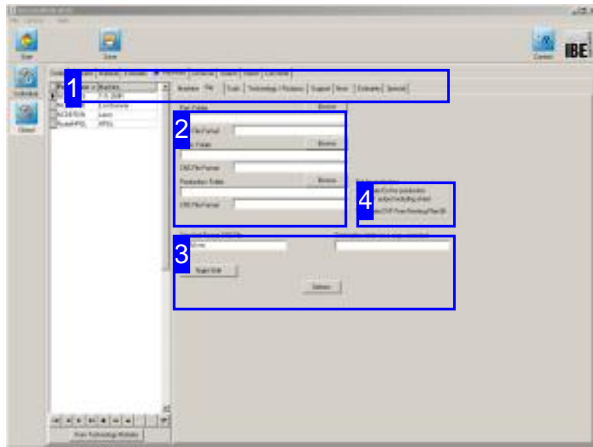


The 'CUT CNC machine parameters' button above right leads you to a workspace where you can make the settings for the machine using the technology module. You can use 'cncCUT.DLL' as a technology module that you can download from the internet. The use of the module must be enabled in the dongle. More details in the coming chapter 'Machine Settings'.

The frames left show you standard commands for ncCAD.



Saving Programs and the Night Shift



This screen allows you to select a dedicated folder for your CNC program data.

To process programs on a night shift, lay the foundations for building your complete programs here. The Night Shift feature must be activated in the main settings!

CNC programs are generated for the production of parts and automatically bundled into the work processes. If you wish to save individual programs to specific folders, e.g. to keep programs organized to machines, then you can do that here.

Multiple CNC programs can also be joined to make a single code file which can be worked by your night shift.



Select 'Machines' in the top tab panel and 'File' in the bottom panel to access the settings for machines and post-processors.



2

Part: Folder	<input type="text"/>	Browse
CNC File Format	<input type="text"/>	
Order: Folder	<input type="text"/>	Browse
CNC File Format	<input type="text"/>	
Production: Folder	<input type="text"/>	Browse
CNC File Format	<input type="text"/>	

If these fields are empty then CNC programs will automatically be saved in the process related subfolder.

To organize differently using folders, set the folder locations here. More detailed information is available through the context help.

Important Note

These folders must exist before the program will work correctly!

3

Standard Format CNC File	Destination folder for a copy command
<input type="text" value="%%08d.cnc"/>	<input type="text"/>
<input type="button" value="Night Shift"/>	
	<input type="button" value="Options"/>

The input field allows you to set the naming format for your CNC programs. More details are available in the context help.

The 'Night Shift' button opens a dialog for setting the rules about creating a night shift program.

'Options' opens a menu to save or load all definitions for a machine. The complete definitions are saved in a file named PPNAME.MOB. The menu item 'Check cost center connections of all machines' allows you to check that all cost center links are correct. The context help should prove useful.



31 Settings for Night Shift: TrTr 260R

Machine Size X: 5000 Y: 25000	Field name for manual input while selecting	<input type="text"/>	Check <input type="checkbox"/> Material <input type="checkbox"/> Thickness <input type="checkbox"/> Size <input type="checkbox"/> Punch
<input checked="" type="checkbox"/> Check Overlapping	Field name for the label	NUMMER	
	Coordinate rounding while placing	0	

NC Program

Single: 0,0,"%PROGRAM%"

First: 0,1,"62+%PROG NR%\r\n%PROGRAM%"

Next: 0,1,"46\r\n62+%PROG NR%\r\n%PROGRAM%"

Last: 0,0,"46\r\n62+%PROG NR%\r\n%PROGRAM%"

Folder for plan files:

Folder For NC Files:

Jobs

Create Jobs Active
 Create PP sub-folder
 Create job sub-folder
 Save NC Files Together
 Save Job Automatically

Job folder (standard: CNC file folder of machine):

Job Name Automatically:

Ok Cancel Help

A series of production plans can be combined into a night shift program, which can then be operated by the night shift. You can create a shared CNC program. More detailed information can be obtained by clicking 'Help' at the bottom right.

4 Dxf for production

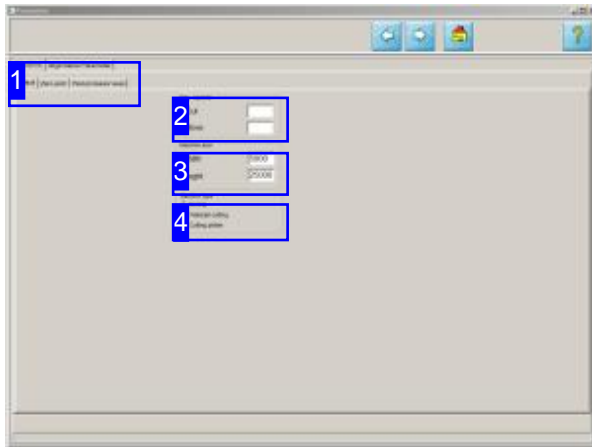
Create Dxf for production
 DXF output including sheet
 Create DXF From Nesting Plan (B)

If 'Dxf' is used as technology module, a DXF file can be issued with the parts and the sheet. Select the checkboxes or give the decision to the production, by activating a button in the form. Select the lower checkbox in case. This function depends on the used technology module.



Machine Settings

Default Settings.



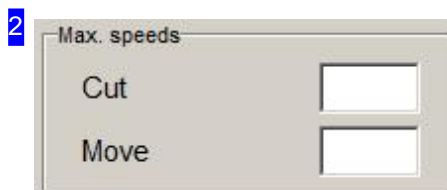
The adjacent frames allow settings to be made for the display of helpful controls in the preview windows.

This screen contains various additional settings for the technology module.



Tabs for the machine settings:

- o Default
- o Null-point
- o Post-processor axes



Enter the maximum speeds for the machine's cutting and traverse paths.



3

Machine size

Width	<input type="text" value="5000"/>
Height	<input type="text" value="25000"/>

Enter the dimensions of your machine's cutting table in mm here. The cutting table is shown as a colored underlay in previews and the technology module's zoom window.

4

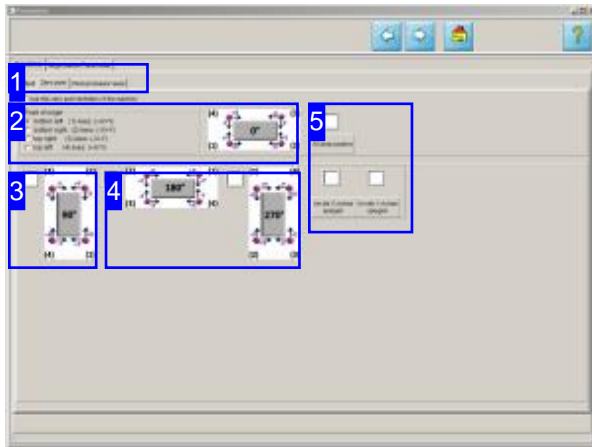
Machine type

- Normal
- Waterjet cutting
- Cutting plotter

The machine type selection made here activates corresponding tabs in the technology module.

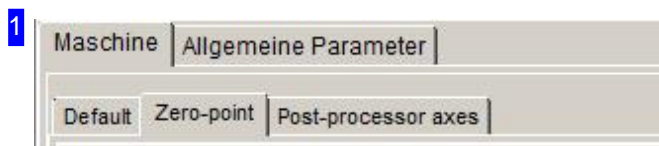


Null-point



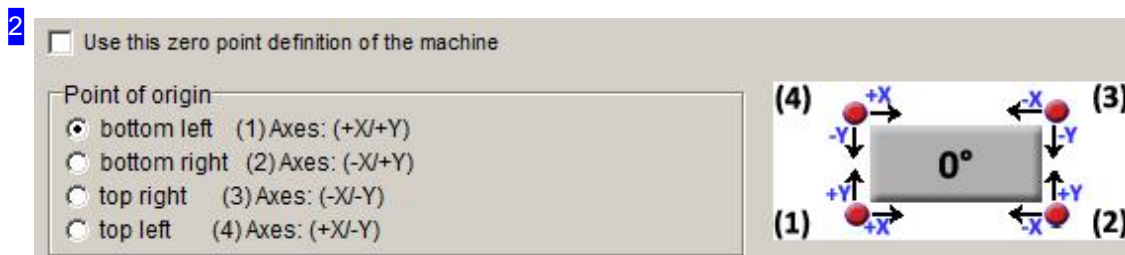
You must set a null-point as start point in order to create your nesting plan. The machines can sometimes offer a different null point, which AV32 can adapt to.

The null point defines a machine's reference point.



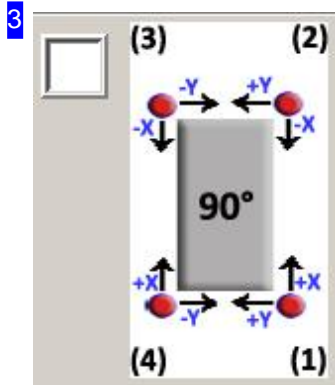
Tabs for the machine settings:

- o Default
- o Null-point
- o Post-processor axes

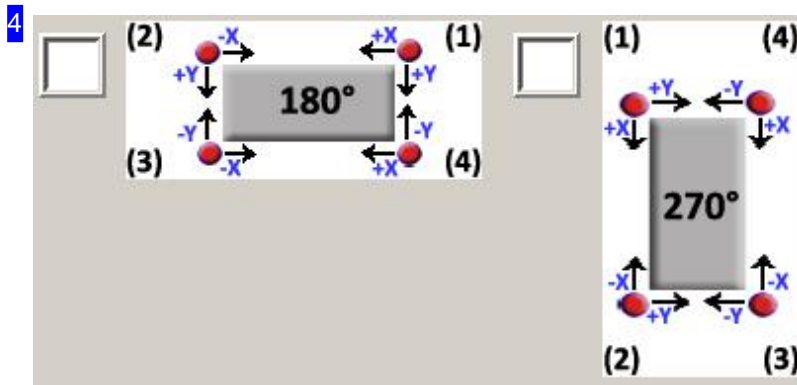




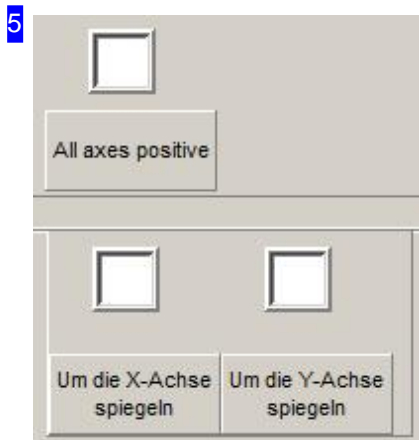
Select the position of your machine's null point and mark the checkbox to confirm.



Sheets and drawings are generally laid out in landscape orientation. You can turn the display by 90° (ccw) about the null point. Mark the checkbox if you would like to do so.



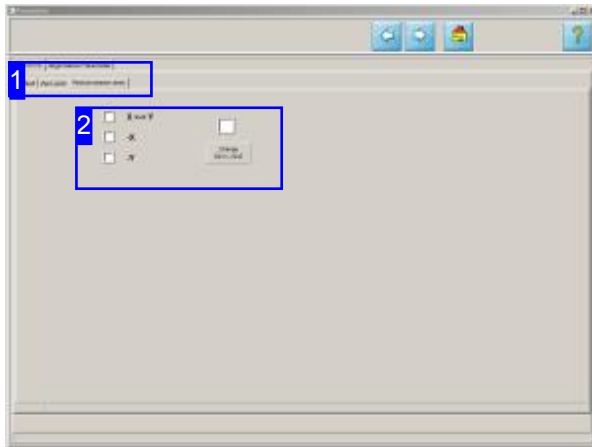
As shown in [3], the display of the plate can turn by 180° or 270°.



Possible settings for axes and mirroring.

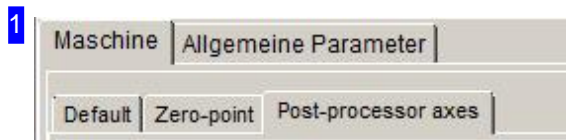


Processor Axes.



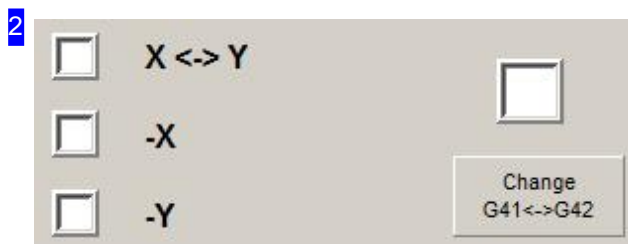
The X-axis is generally defined as the 'long side' and the Y-axis as the 'short side' of the machine table. Dependent on the machine, how the sheet is laid up and the post-processor, it can be necessary to swap the axes.

The processor axes set the running direction of the cutting tool when generating the NC code.



Tabs for the machine settings:

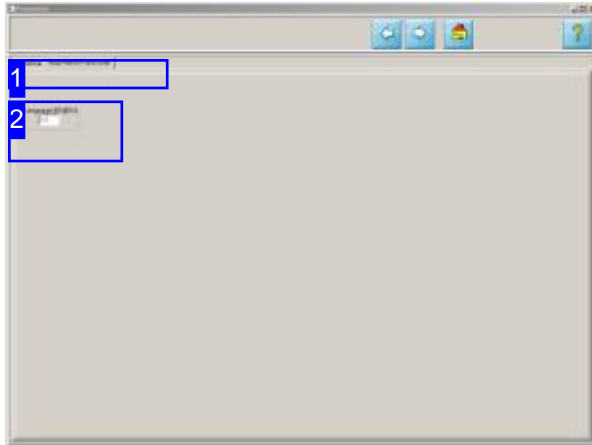
- o Defaults
- o Null-point
- o Processor axes



Mark the corresponding box to how CNC code outputs in X and Y should be interpreted. The top checkbox swaps the axes and the next two invert each axis.
Change the cutting direction on the right.

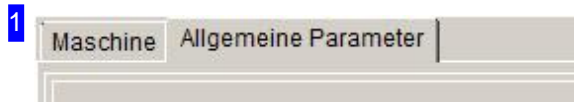


General

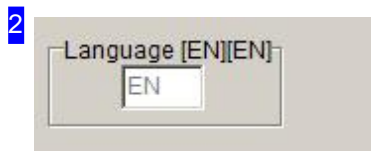


You select the language for the technology module in this window.

The machine settings are part of the technology module and require a preset for the language.



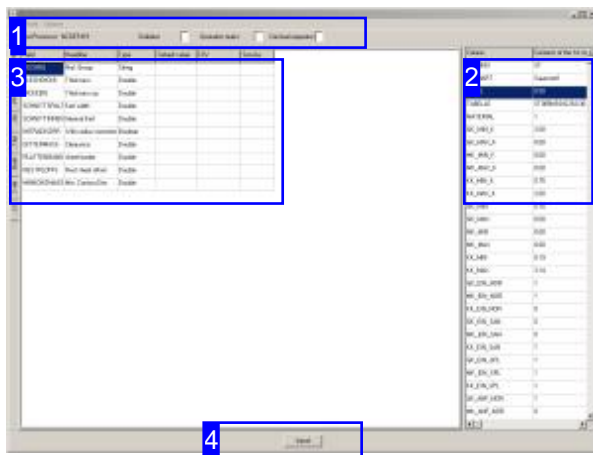
Tab 'General settings':



Enter an identifier for the language in which the machine settings should be display: DE for German and EN for English.



Importing Technology Data From a CSV File.



After installing AV32, you can import existing technology values from a CSV file. To do this, AV32 will require the optional library file 'TECHIMP.dll' to be installed in the main program directory.

You can import technology data in the 'Post-pr.' tab, accessed under the 'Machines' tab in the 'Global Settings' window. Select the relevant post-processor before importing any data. Click 'Technology Data - Import' to open a dialog for opening the CSV file and allocate the data to AV32's corresponding input fields.

Transfer data from the CSV file by dragging and dropping the names in 'Column' from the table on the right [2] to the corresponding fields under 'CSV' to the left [3]. Assigning these values correctly now allows the computer to import the rest of the data automatically - click 'Import' at the bottom [4] to begin the transfer.

The complete process of the assignment can be stored in a mapping file (.ZUO). Select the menu item [File][Assignment][Save] to store the individual assignments and allocations to the CSV file after completion. This gives you a basis to obtain the same settings when reinstalling a post processor, without having to repeat the complete process. When loading a mapping file, the linked CSV file is automatically loaded and the process of mapping is automatically completed. Make sure that the path to the CSV file in the mapping file is correct. With an import of both files from another system, you might need to adjust the linkage with a text editor.

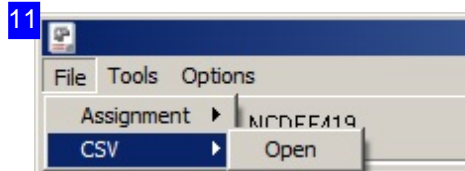


First enter the formatting characters used when converting, and then import the CSV file using the menu item 'File'.

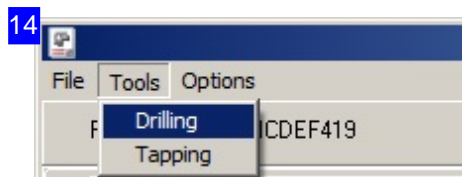
You can export the current settings of the postprocessor in a CSV file via the menu item 'Options'.



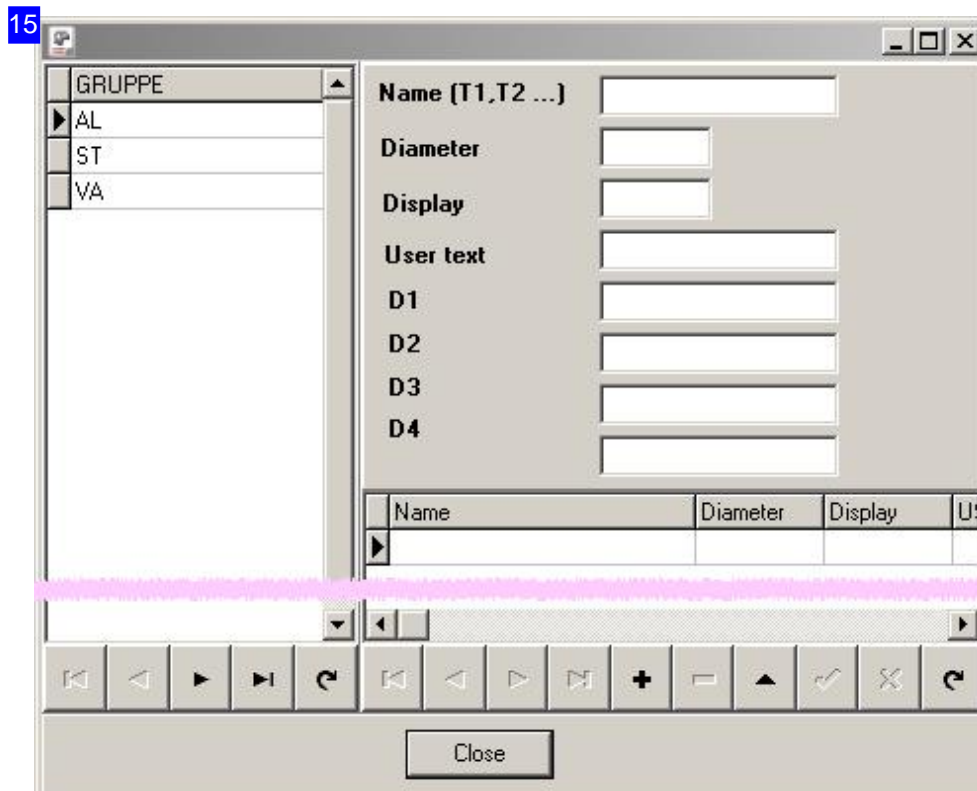
If exists a CSV file and also a mapping file, the data transfer can be done using the mapping file. Select the menu item 'Assignment'.



You can import a CSV file via the 'File' menu. Make sure that the separators are set correctly for the data transfer.



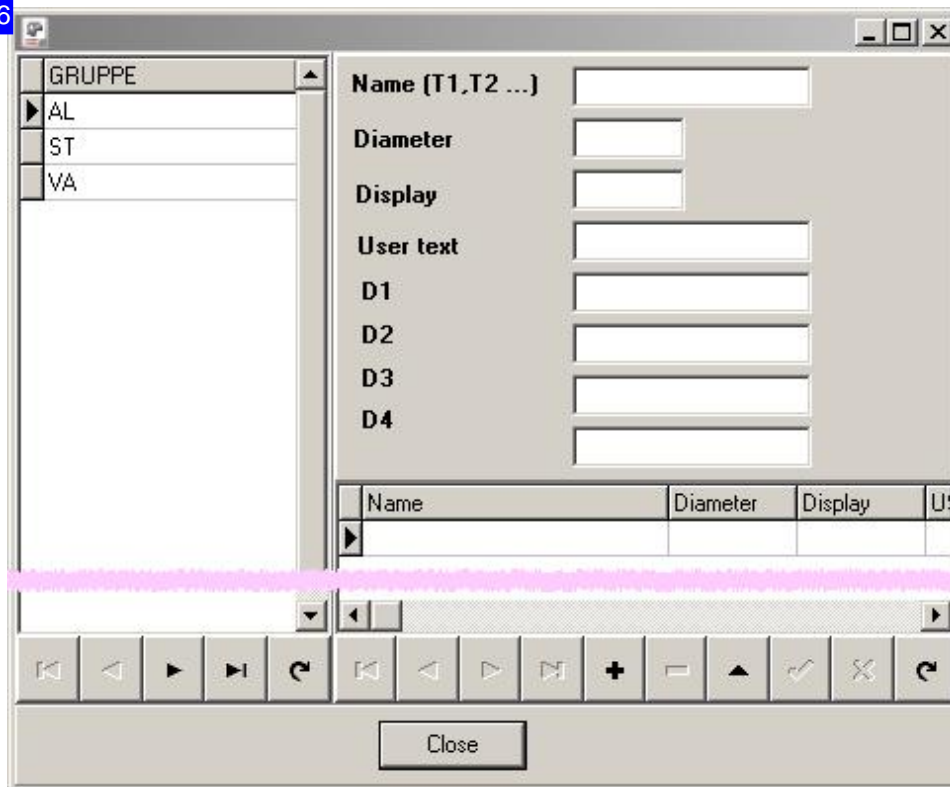
The 'Tool' menu allows you entering presets for drilling and tapping.



Here you can allocate the T-numbers different values for drilling for different materials.

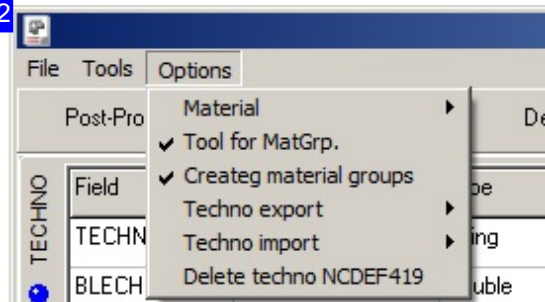


16



Here you can allocate the T-numbers different values for tapping for different materials.

12



You can export the current settings of the postprocessor in a CSV file via the 'Options' menu. It is also written a mapping file automatically.

13



You can import a mapping file via the 'assignment' menu. The linked CSV file is also read with it and the assignment of the data to the table fields is made automatically.

Choose 'Save' to preserve the process after manual assignment for later use. The link is then made to the currently loaded CSV file!



2

Column	Contents of the 1st row
TECHNO	ST
TECHART	Sauerstoff
DICKE	0.50
TABELLE	ST005MD0-02S0-30-
MK_ANF_NOR	0

Here is a list of all data from the file. Mark a field and drag-drop it on the field with the relevant description [3].

3

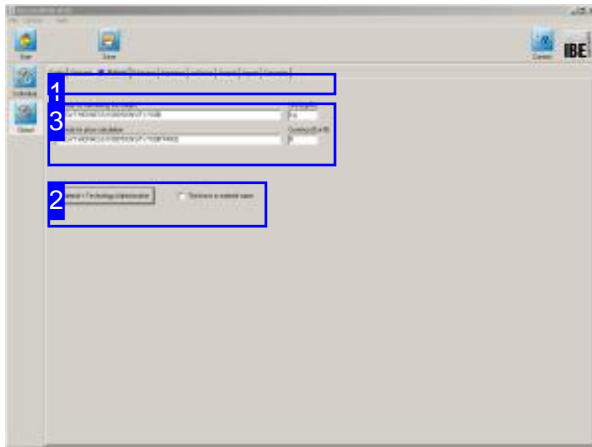
Field	Headline	Type	Default value	CSV	Service
TECHNO	Mat. Group	String			
BLECHDICKE	Thickness	Double			
DICKEBIS	Thickness up	Double			
SCHNITTSPALT	Kerf width	Double			
SCHNITTINNEN	Internal Kerf	Double			
MITRADKORR	With radius corrector	Boolean			
GITTERMASS	Clearance	Double			
PLATTENRAND	sheet border	Double			
RESTPLOFFS	Rest sheet offset	Double			
MINKONTMASS	Min. Contour Dim.	Double			

The technology data for the technology module are listed here. Drag and drop the CSV file's values [2] to the corresponding table titles.



Once you have corrected the relevant allocations from the CSV file [2] to the data list [3], click 'Import' to start the transfer.

Materials Management and Settings in the Technology Module.



To access materials management, click 'Material/Technology Management' [2] under the 'Material' tab [1]. This brings you to a screen where you can make entries and settings for materials and technologies.

This screen also contains the formulae for calculating prices and weights. More detailed information on that can be found in the context help.

Materials management is a major part of what AV32. does. The materials management screen contains material groups with properties relevant for price calculations and technologies. Enter material groups here. Make the required settings, and enter the relevant values.



Select the 'Material' tab to access materials management.



To access materials management, click 'Material/Technology Management' [2] under the 'Material' tab [1]. This brings you to a screen where you can make entries and settings for materials and technologies.



3

Formula for calculating the weight	Unit (kg/lb)
<input type="text" value="AREA*THICKNESS/1000*DENSITY/1000"/>	<input type="text" value="kg"/>
Formula for price calculation	Currency (Eur/\$)
<input type="text" value="AREA*THICKNESS/1000*DENSITY/1000*PRICE"/>	<input type="text" value="€"/>

The formulae shown here work with variables which stem from all areas of the program. More detailed information on the root of each variable can be obtained by clicking the context help.

21

Materials/Technology Management

Material from text

Name	Number	Mat. Group	Density	Price	Tens. Str. Frq	Tens. Str. Tg	Rotation Ang
▶ ALMG3	00000005	AL	2.7	0.8	300	500	
ALMG3	00000010	AL	2.7	0.8	300	500	
S235J	1.0038	ST	7.9	0.7	290	540	
S235J	1.0038	ST	7.9	0.7	290	540	
S355N	1.0545	ST	7.9	0.8	470	630	
S355N	1.0545	ST	7.9	0.8	470	630	
Si37	00000011	ST	7.9	0.8	300	500	90
X5CrNi18-10	1.4301	VA	7.9	0.8	510	520	
X5CrNi18-10	1.4301	VA	7.9	0.8	510	520	
X6CrNiMoTi17-12-2	1.4571	VA	7.9	0.8	510	520	
X6CrNiMoTi17-12-2	1.4571	VA	7.9	0.8	510	520	

Ok Help Copy Record

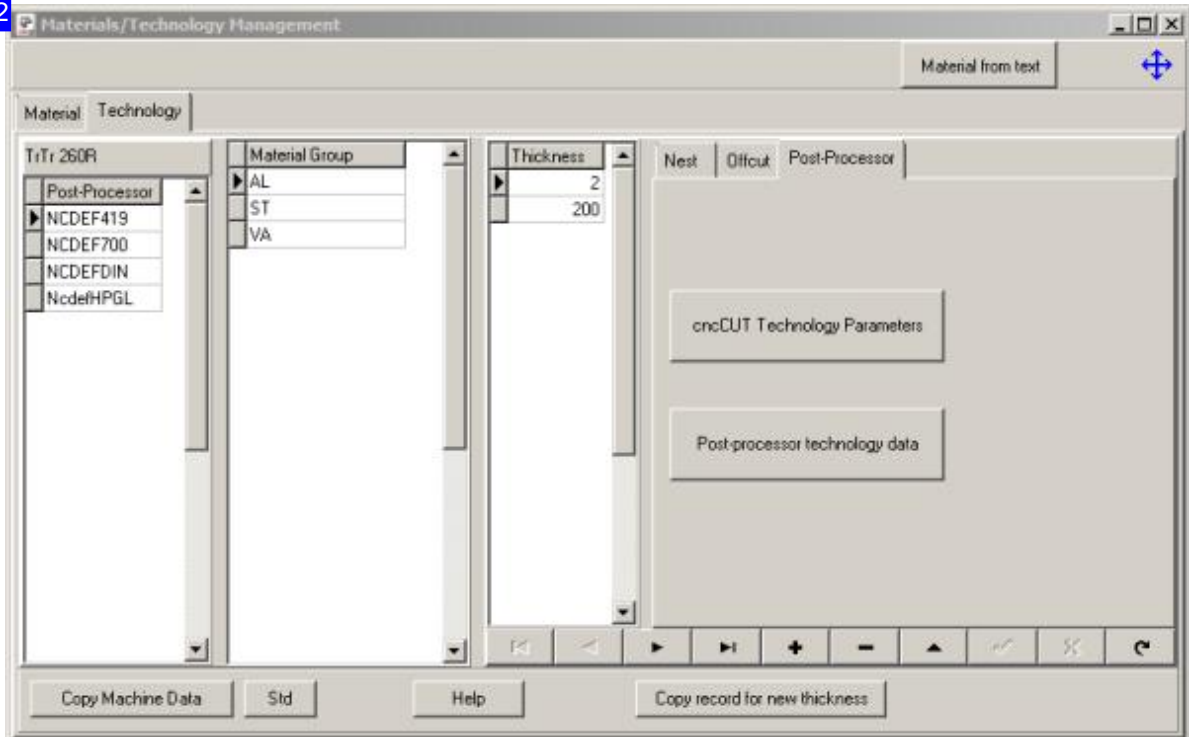
A basic requirement for getting the most out of AV32 is the correct maintenance of your materials and material groups database. The data you enter here is used in the parts and orders forms. You can group materials together for your post-processors to access them. The post-processors can then assign technology data to the materials by group.

More detailed information on the table's individual columns can be found by clicking the 'Help' button under the table. You will also find explanations regarding thickness, density and price and how they relate calculating your parts for price estimates.

Click on 'material from text' upper right and a dialog opens, where you can import the material name from a text input or from text files into the database. These material names can be directly assigned to a material group.



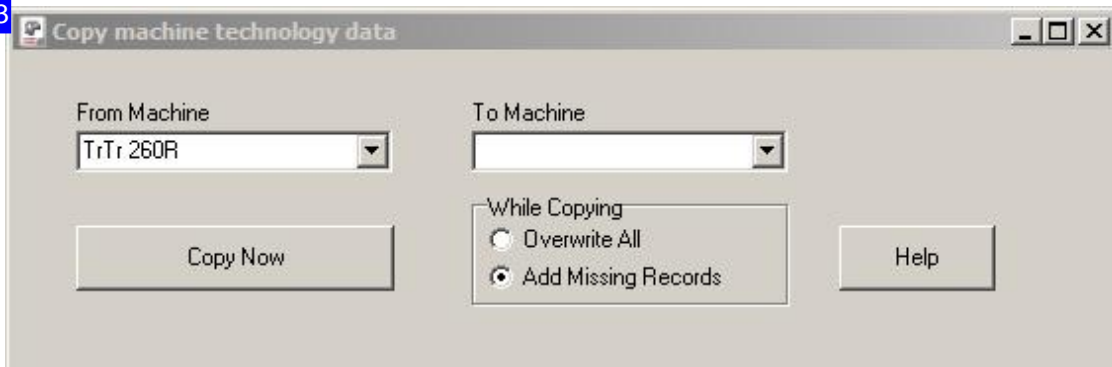
22



The 'Technonlogy Management' field allows you to assign various technology values to the material groups and sheet thicknesses in your post-processor. You can make settings for nesting, offcut sheets and the post-processor here. For more detailed information, click the 'Help' button under the table.

Click the button at the bottom left if you wish to transfer one machine's data to another. A dialog will open with options for copying some or all of the first machine's data.

23



The 'Copy Machine Data' dialog allows you to copy all or some of one machine's data onto another. More detailed information on the individual settings is available by clicking the 'Help' button to the right.



24

Nest Offcut Post-Processor

Thickness (from) Thickness (to)
 -

Dimensions

Kerf width

Clearance

Internal Kerf

With radius correction

Margin distance

Enter the values for the kerf width, edge distance and grid distance, which you want to assign to the sheet. Select the checkbox if you want to give radius compensation to the sheet.

25

Nest Offcut Post-Processor

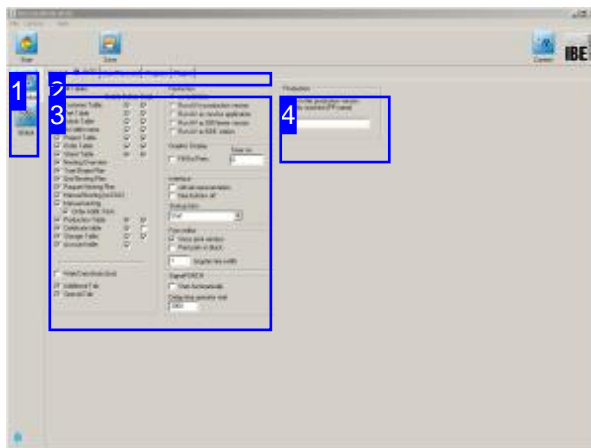
Offset For Offcut

Min. Contour Dim.

Enter the values for offset and the minimum required contour dimension that are valid for an offcut.

Individual Settings

Configuring Your Application.



You can make settings relating to an individual workstation under [Options],[Individual Settings]. Set the location of your license dongle and which windows you will require access to.

IBE uses both traditional hardlocks and a more modern type of USB dongle license protection which allows maintenance to be carried out via the internet and licenses to be transferred to new hardware.

AV32 can be tailored individually and globally to your operating system and requirements. This screen allows you to make settings for individual workstations.



The navigation panel gives general navigation control of the program's forms.

- o The 'Individual' button gives access to the individual user settings.
- o The bottom button returns to the Global Settings screen.



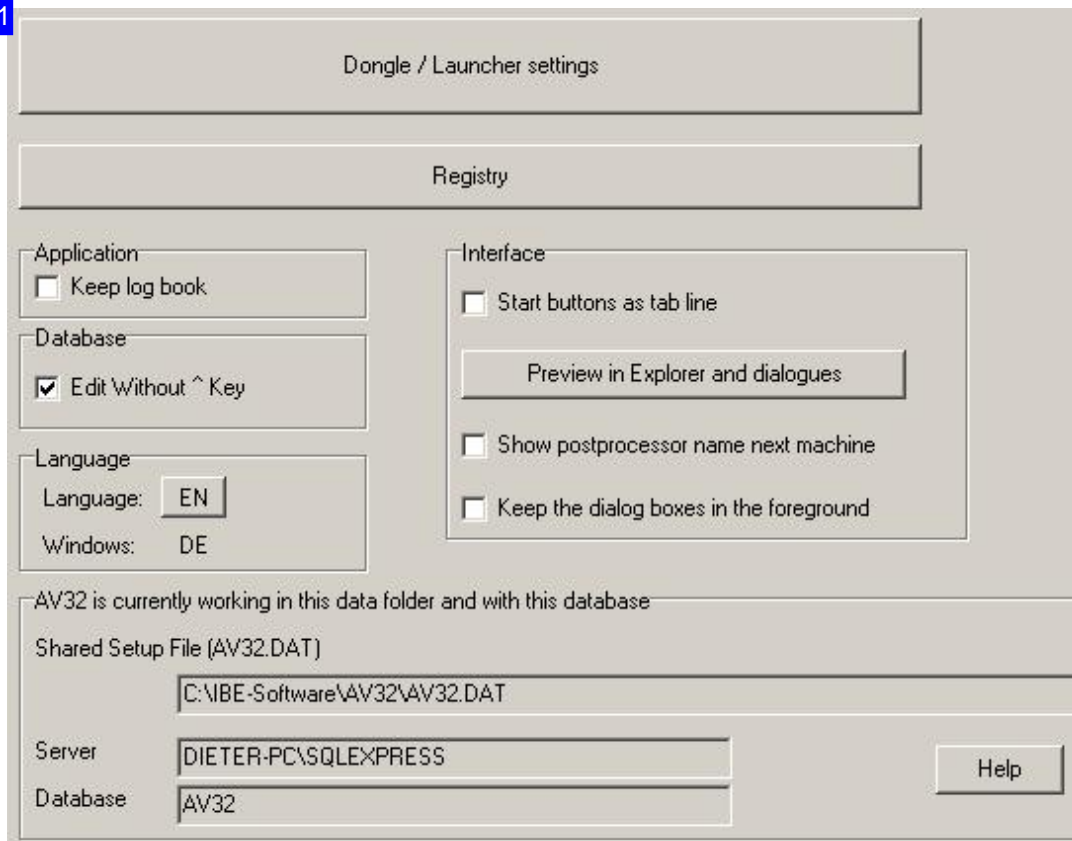
Tabs corresponding to the program's various themes are shown in the top tab panel.



- o 'General'
- o 'AV32'
- o 'Operator/Password'
- o 'Programs'
- o 'Plugins'

Settings for a personal workstation can be found under the 'AV32' [3] tab. For dongle management and license activation, click 'General'.

21

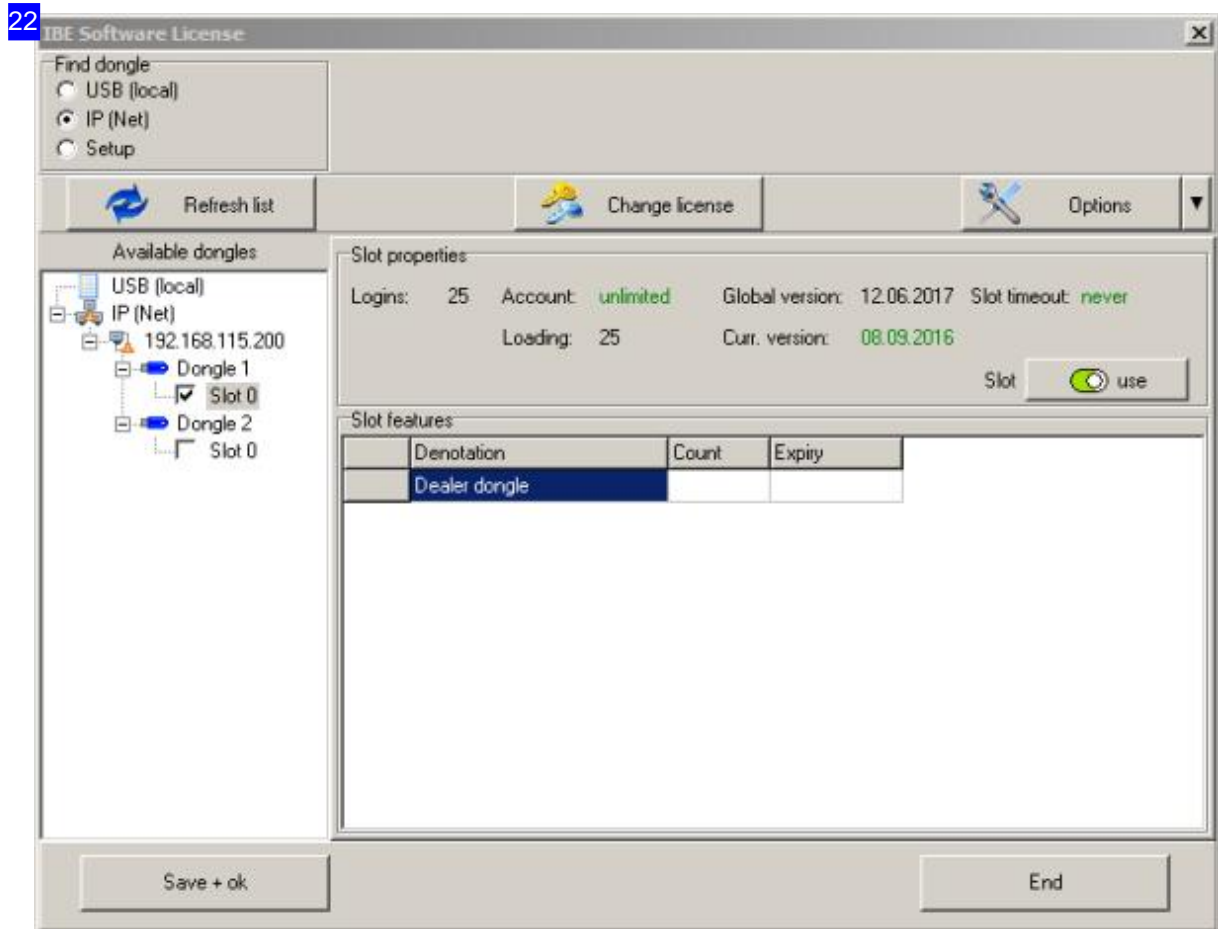


You make the dongle administrative and program launcher settings in a separate dialog. Press the top button, the dialog is opened with the 'license window'.

All individual settings/display settings are stored in a section of the Windows registry. Click on 'Registry' the dialog is opened to edit the 'application record'.

The window for the file preview (File Explorer) can be configured to as part of 'Interface'. This requires that the library 'ibe_PrVHdr.dll' is available on the computer, that a preview of the different file formats in the File Explorer is possible. The old Explorer window is then replaced by a new one that looks like the Windows®-Explorer.

Click on the button 'Preview in Explorer and dialogues' opens a dialog in which the different file formats can be registered.



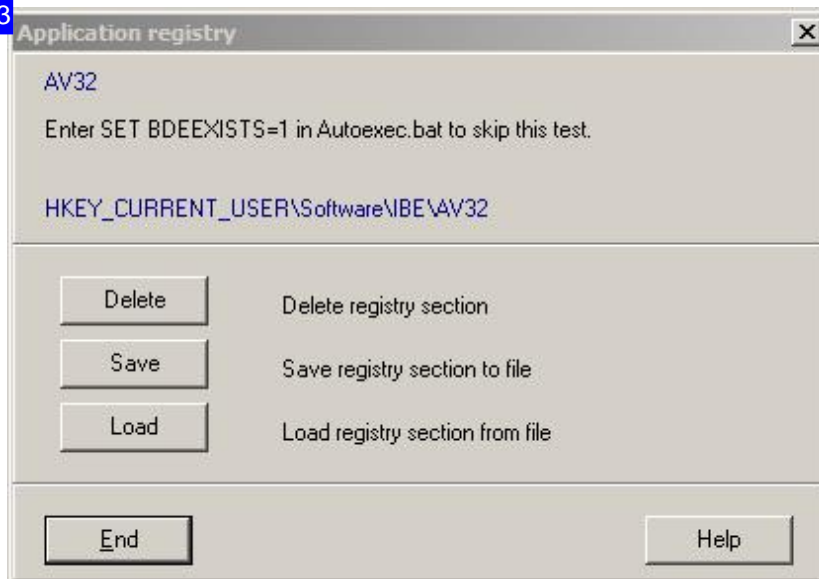
The license dongle can be attached to your individual workstation or to the network server. If you have an IBE dongle the license is activated with a license file which can be downloaded from the internet. Click 'Check Internet' and we will check and update your dongle. The license files are created individually and sequentially for each dongle. This requires the identification of your dongle. The sequence of updates must be continuously.

The license file can also be sent offline and imported to your system on a data media. Once you have the data media inserted, click 'Install License File'.

You can also authorise an extension using license codes entered into the 'Manual Input' box.



23



All individual settings / display settings are stored in a section of the Windows® registry. The portion can be stored in a file and loaded again on another computer. Ensure that path information are edited when these are set.

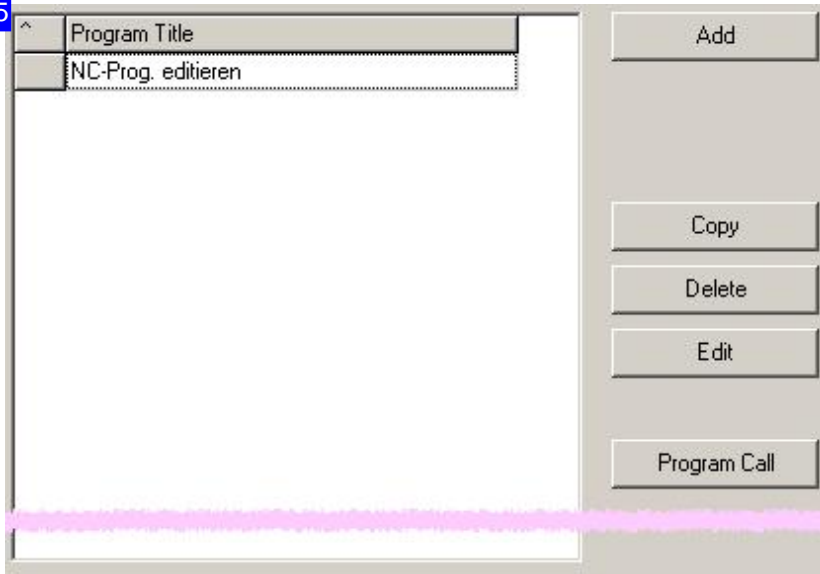
24



Enter the username and password, if desired.

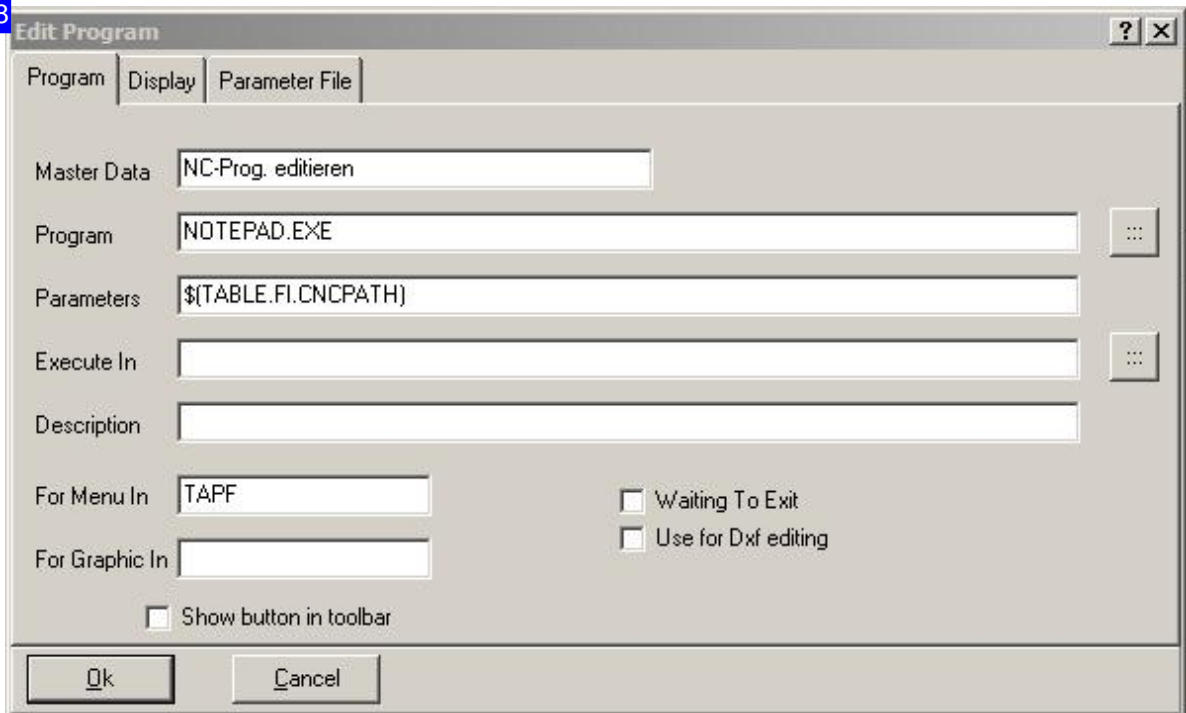


25



Control of integrated programs for later use. A dialogue opens for maintenance.

28



All settings are made for the use of an integrated program in this dialog. You set the guidelines for the program display and the parameter file under the respective tabs.



26

File		Description
av034.dll	+	Türprojekt Erstellung
av034m.dll	+	-- Unloaded -- (Dll)
avhandxf.dll	+	Makro
avmak.dxf.dll	+	Mak2DXF Converter
avmatdrill.dll	+	-- Loaded --
avpartcreator.dll	+	PartCreator
avrondeneing.dll	+	Mak2DXF Converter

Load At Next Restart (Active)
 Version Info
Properties

Get informations about all plug-ins in this list and make any potential adjustments. A plugin is started automatically on each workstation, if it is installed in a network. Here it can be switched off individually; mark the checkbox at the bottom right. The system has to be restarted after a change to take effect.

27

IBEPreviewHandler config X

Configure the file types to be displayed by IBE PreviewHandler on this workstation Help

IBE System Files

Specify file types

.dxf
.dwg
.zew
.law
.stw
.spl

Specify file types for external reader

.cnc=DIN

.cnc=DIN
.extension=CDL

It requires the administrator authority to perform the registration

Register new settings now

Unregister

The file formats .dwg and .dxf can be displayed in addition to the IBE file formats .zew, .law, .stl and



.spl. Other formats can be activated, the corresponding reader must then be present on the computer. Organize in the right list the appropriate file extension ('extension') format to eg 'cnc' to activate the preview. If the same file extension should be read with different programs, a string must be specified and exist in the file. The string is indicated by a vertical bar: .cnc=TPF|#MACHTYP\$.cnc=DIN Click on the button 'Register new settings now' to register the preview programs. Registration takes place in the registry, making it universal and also available for the preview in the System Explorer window.

3

For All Tables		
	Delete Button	Displ.
<input checked="" type="checkbox"/> Customer Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Part Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Article Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> No table name	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Project Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Order Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Sheet Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Nesting Overview		
<input checked="" type="checkbox"/> True-Shape Plan		
<input checked="" type="checkbox"/> Grid Nesting Plan		
<input checked="" type="checkbox"/> Parquet Nesting Plan		
<input checked="" type="checkbox"/> Manual Nesting (ncCAD)		
<input checked="" type="checkbox"/> Manual nesting		
<input checked="" type="checkbox"/> Order Addit. Parts		
<input checked="" type="checkbox"/> Production Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Certificate table	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Storage Table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Account table	<input checked="" type="checkbox"/>	

Wide Data Grids (List)

Additional Tab

Special Tab

Restriction

no restriction

Run AV in production version

Run AV as service application

Run AV as DBViewer version

Run AV as BDE station

Graphic Display

Fill Out Parts

Timer ms:

Interface

old tab representation

blue buttons off

Startup form:

Form editor

Show print window

Print parts in black

Graphic line width

SigmaPUNCH

Start Automatically

Delay time operator start:

Set the checkboxes corresponding to all windows you would like to be able to use at your workstation. If you require any further information on the individual settings, use the context help system. Click the 'Context' button first, then the setting you wish to find out more about. If a description is available it will pop up in a dialog . The context help often gives tips about the expected format of inputs in a form.

4

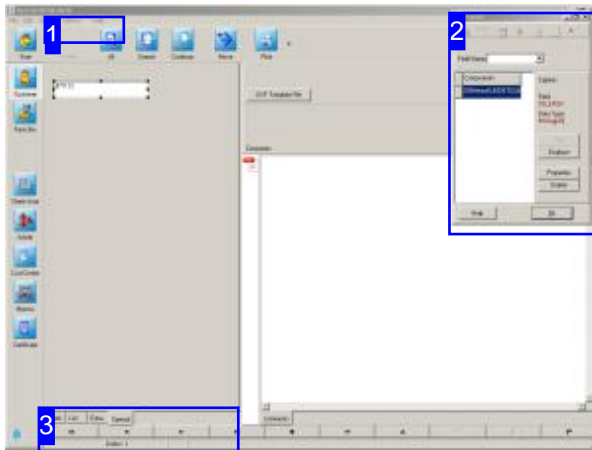
Production

Show in the production version only this machine (PP name)

You have to enter the post-processor if production-version is used. Only data-sets for this machine will appear at production.



Show database fields individually in forms



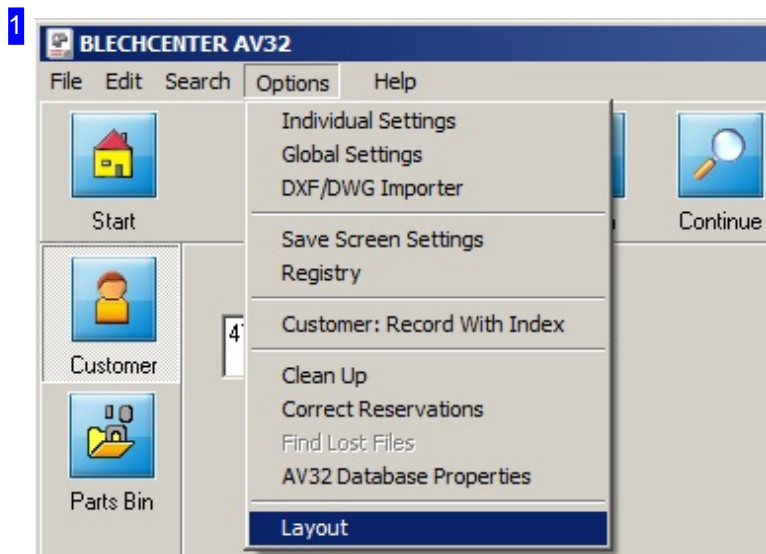
You can see the contents of database fields in the forms under the conditions specified by the program, and adjusted them freely in the database maintenance. The adaptation of the forms takes place exclusively via the Design Wizard. With it you can place additional input or display fields for certain database fields in predefined areas in the form. Also cross-references, that is, fields from other tables, can be displayed.

If you want to create your own new fields in the data table it must be done before calling the Design Wizard.

- o Click 'Options', 'Database Properties'. A dialog opens where you can select 'Table Properties' with a click on the button right in the header.
- o Enter the physical fields with the appropriate data types.

Adapt the forms with the Design Wizard. Select the menu item [Options][Layout]; a dialog opens where you can adapt the data fields onto the form.

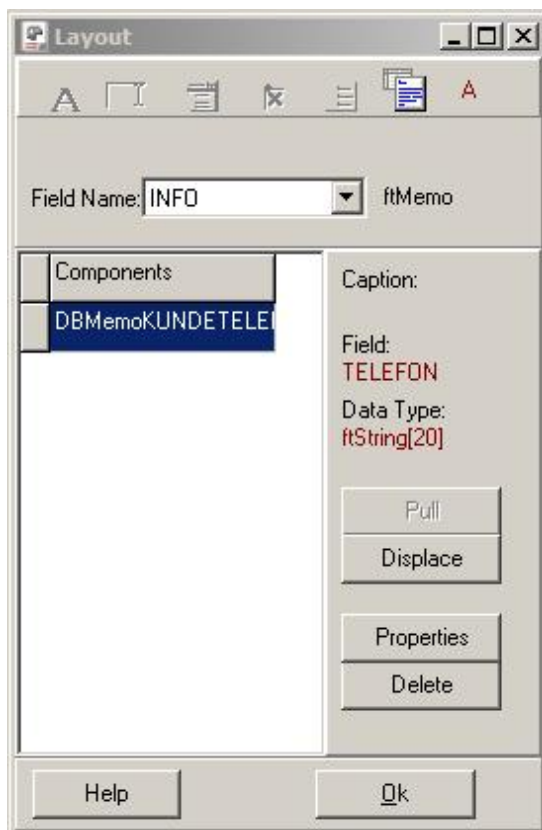
Only physically existing fields in the database can be used in the draft .



You can start the Design Wizard under the menu item 'Options', 'Layout' in the various forms.



2



To bring a new field to a form:

- o Select a field name from the list. Form elements are activated with the associated field name in the header.
- o Select a form element; the element will be displayed with an internal name in the list of components. This name can not be changed and is used only for identification while designing.
- o Select a component from the list. If the element is already included in the form, it is marked and the button 'Displace' will be enabled, which allows you to remove the element.

If the element is not yet available, the button 'Pull' is activated. Press the button and drag it while pressing the MT to the desired location on the form. Possible locations are indicated by the cursor. You get a larger field for location on the tab 'Special'.

An element can be moved with the mouse in the form and changed in size with the markings. Select 'Properties' for exact placement.

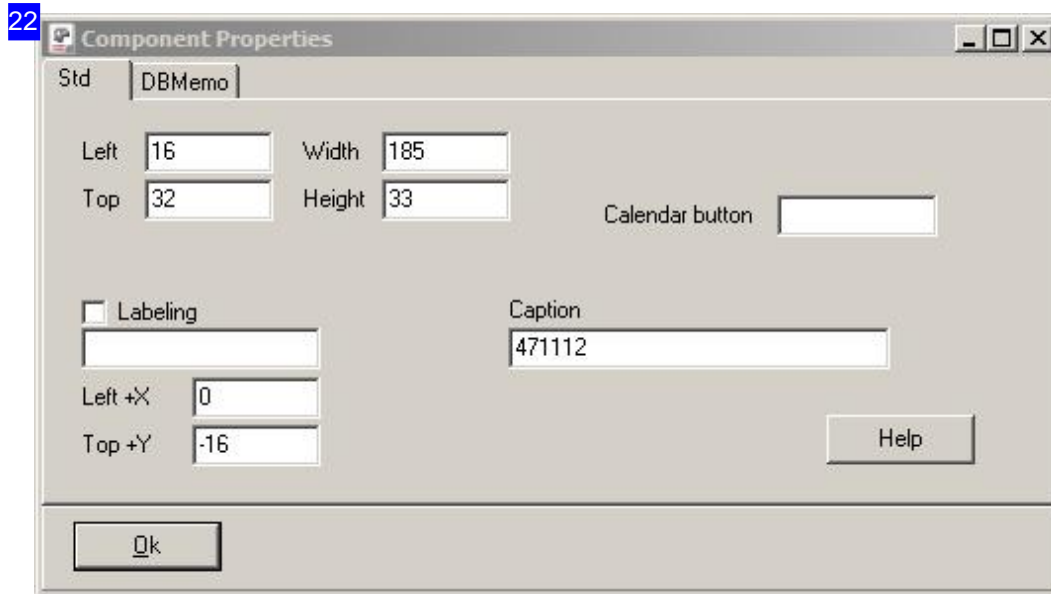
The order of elements in the list can be sorted for the control of the elements with <Tab>. Drag the gray box next to the entry with the mouse to the desired list position.

21

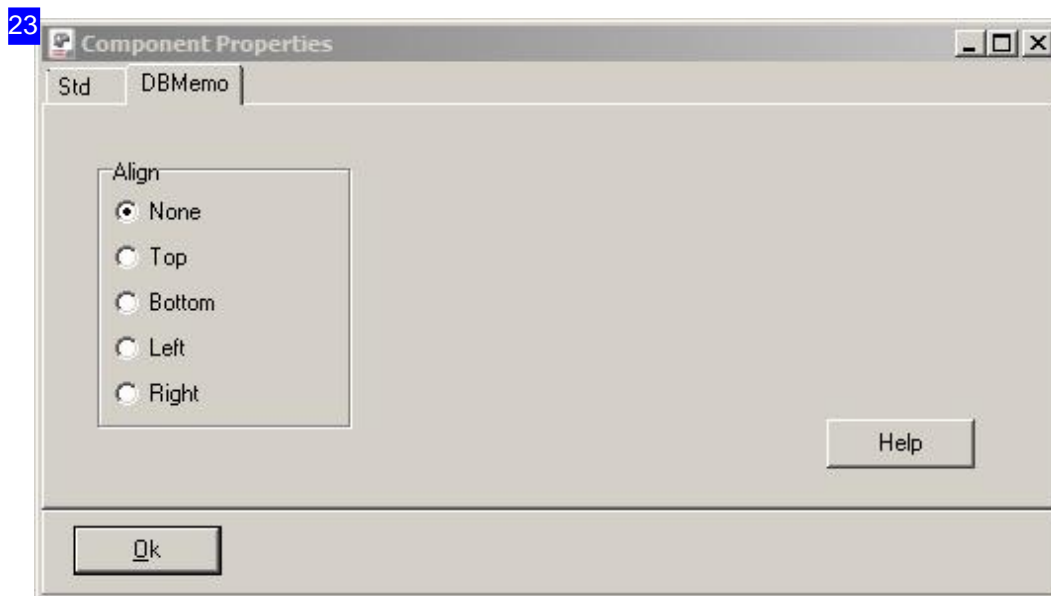


The possible field definitions for the database fields are available for selection in the header. The symbols are activated according to the selection and mean from the left:

- o Label: Allows you to display the contents of the field as plain text. A change is not possible.
- o Edit box: allows you to display the contents of the field in a text field, it can be changed.
- o ComboBox: Allows you to select the contents of the field out of a box. You can define on 'Properties' what texts appear in the box.
- o CheckBox: You can show the content of boolean (yes/no) fields for the selection.
- o Radio Group: Allows you to select the contents of the field by clicking the radio buttons. You define the labeling of the buttons and the actual value in the data field on 'Properties'.
- o Text field: Allows you to select the contents of memo (text) fields.
- o Label Cross Reference: Allows you to view the contents of data fields from another data table as text. The field is set for this type under 'Properties' and not elected out of the box. This works only if the current table has a relation to another table (eg customer number, part index).



You can manipulate the form elements in this dialog. You can determine the size and position of the field exactly and enter a descriptive text for the field. Mark the selection box 'Labeling' and enter a text for description. You can also attach text fields on a frame under the tab 'DBMemo'. Is a field of type 'ftDATE', you can also generate a button that always opens a dialog automatically with a calendar as an aid for entering a date. Type the caption of the button in the field 'Calendar button' and thus generate the button.



Some elements can be attached to the frame where they should be represented. In this case, select the position where the field is to be attached.



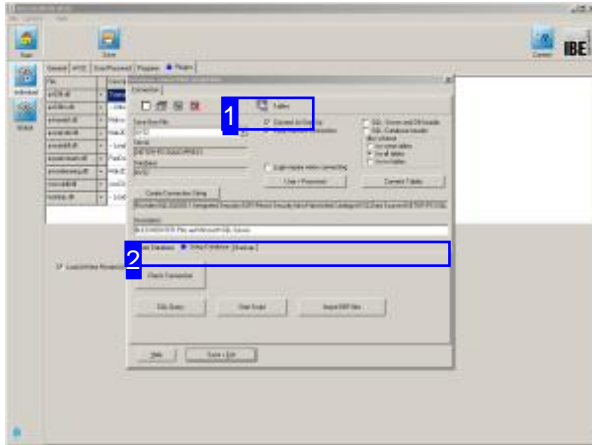
3



You have a large open space available under the tab 'Special' to display your individual information. This tab (special rider) must be activated in the 'Individual Settings'.

Database Settings

Backups and Restoring.



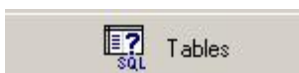
To see information about the database, click [Options],[Database properties AV32]. A dialog will open where you can see and check information about the database.

The AV32 database must be saved on an MS SQL server under the name 'AV32'. The installation of the SQL server, creation of the database and connection to the database are described in detail in the installation handbook.

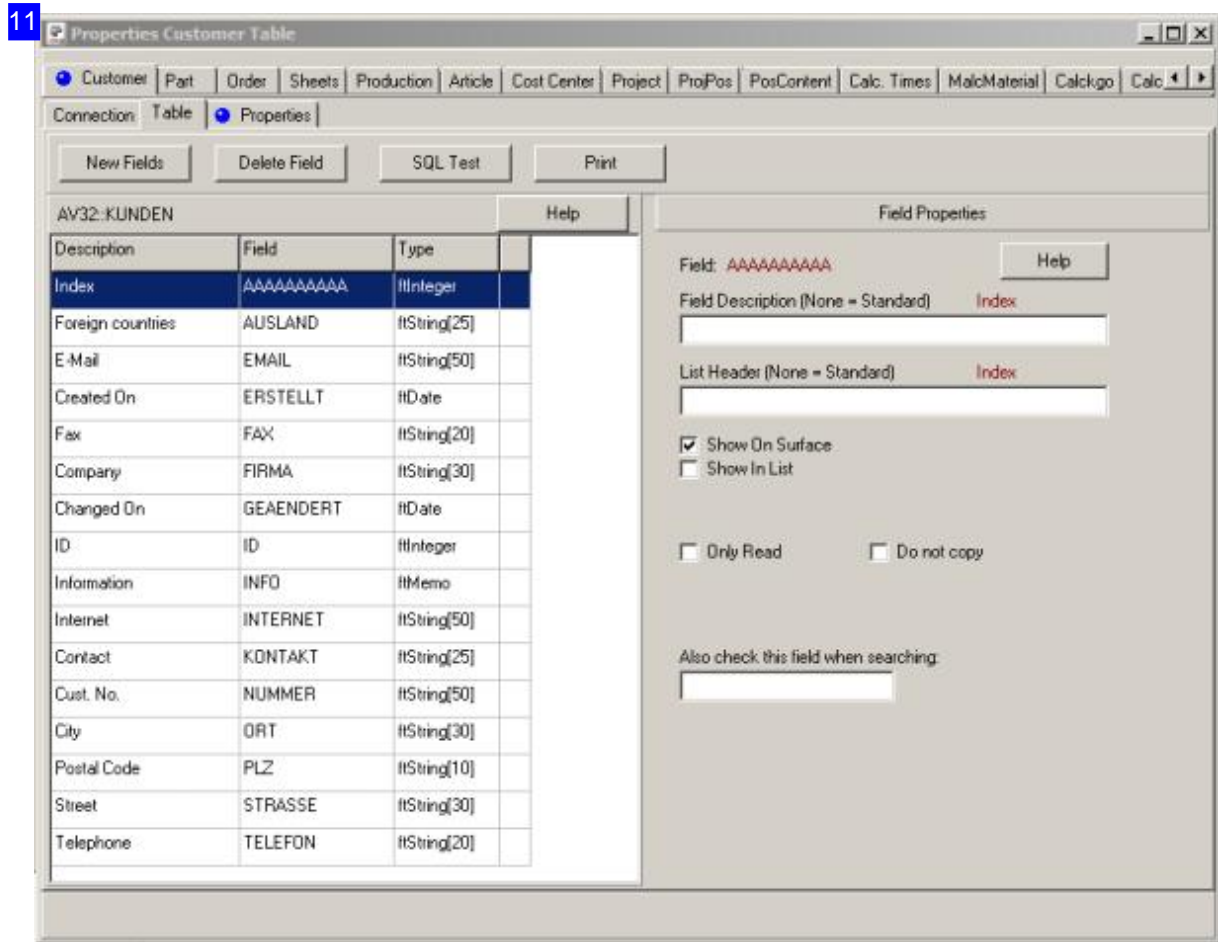
A database backup should be made regularly by the administrator. Backups represent an important part of keeping your data secure. The 'SQL Server Management Studio' will help you do this, while taking all special aspects of your database into consideration. Install the program to your computer from your installation CD. More detailed information can be found in the installation handbook for AV32 .

The software allows you to take manual backups as required, and/or a regular scheduled backup.

1



To access the database tables, click the SQL icon.



The links between the database tables can be seen in this dialog. You can select all tables in the tab panel for detailed information about the table fields and their properties. The individual tab labels are assigned to the program's forms.

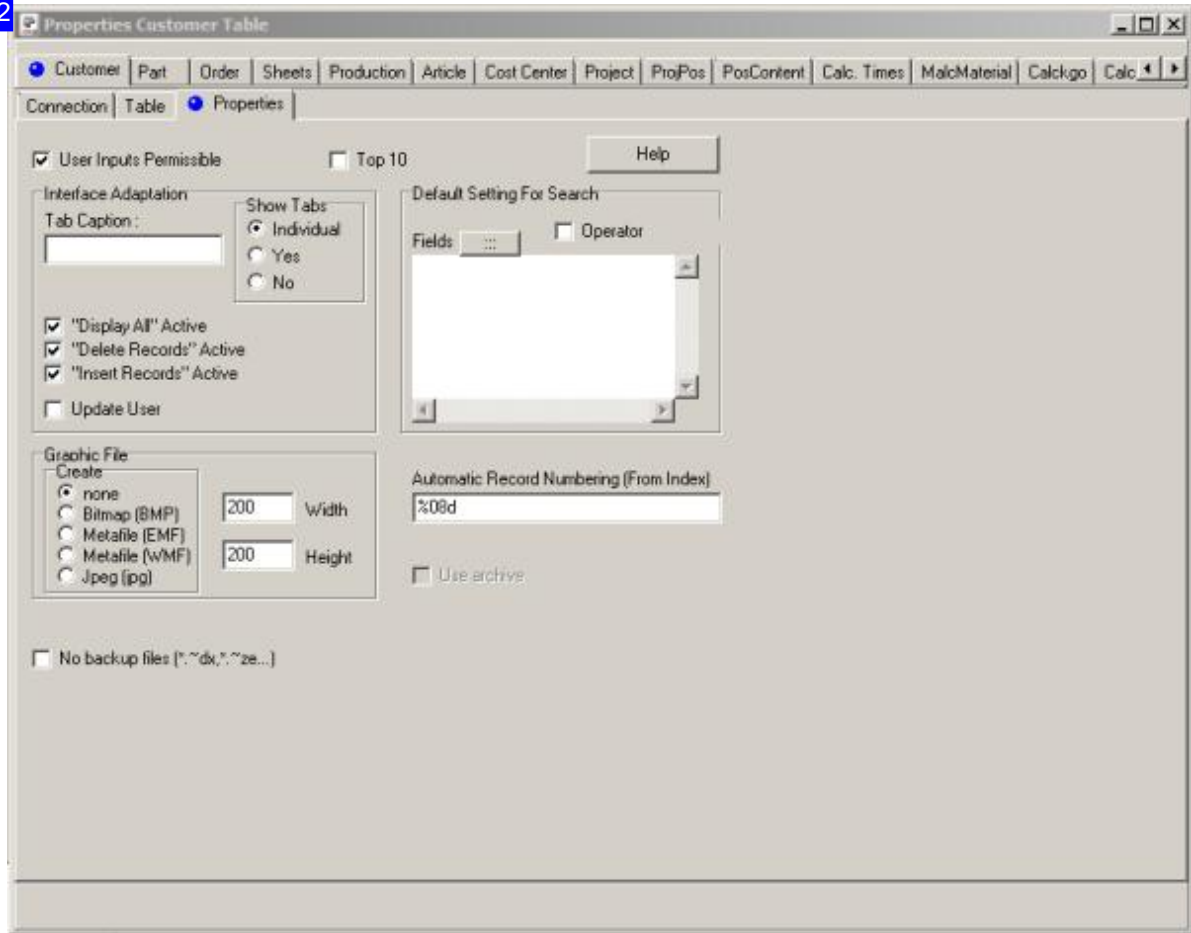
The contents of the tables' fields are linked to the contents of the fields throughout the program's forms. Any changes made here will lead to corresponding changes in the program, or that a given field will not be displayed, so be cautious when making changes.

For more details on the individual input fields, use the help button in the relevant dialog. Sometimes this operates like the context help system , sometimes like a normal help button.

You can make adjustments to the forms and preferences for dealing with the database on the tab 'Properties'.



12



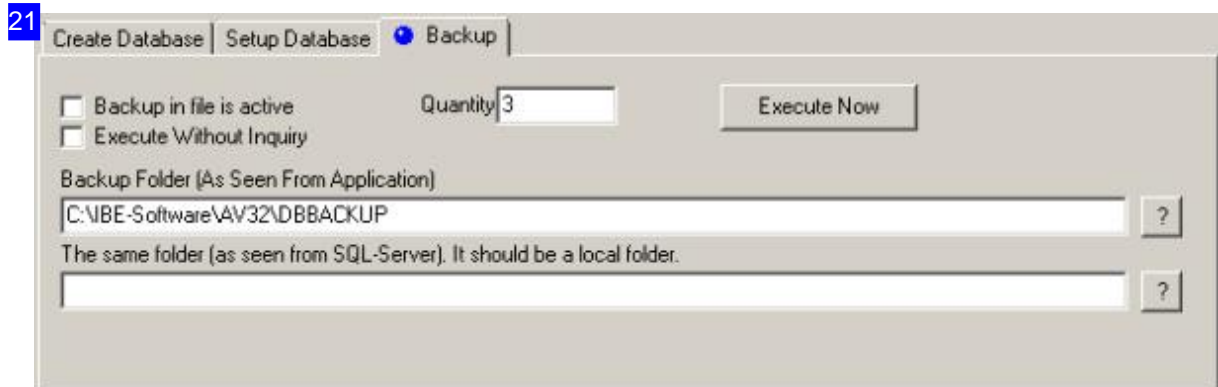
Here you can specify in which format graphics are saved, which are made from drawings for general use. This is only possible for tables also containing drawings (.zew).

Use the Context help to obtain information about the individual input fields.

2



For making and recovering to restore points, select the tabs 'Backup' and 'Create database'.



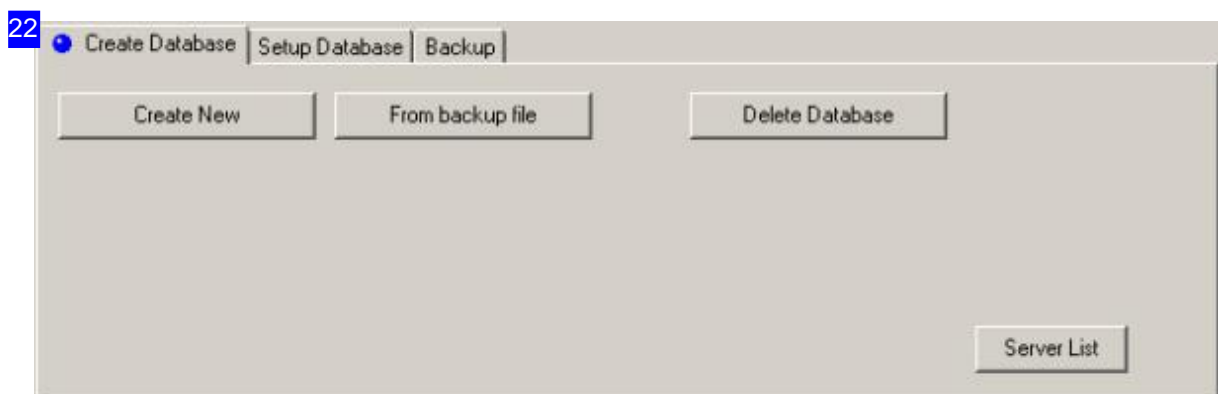
The database will be backed up to the folder designated as 'Backup Folder'. It is best to use a local folder to cut down complication - you can always save a duplicate backup to a redundant drive afterward if you wish. Even then, it is possible that the server may see this folder under a different path, e.g. due to different drive letter allocations from the server's point of view. To circumvent this problem, enter the address again as the server understands it the lower box.

If you have activated automatic database backups, a prompt dialog will appear when the last user logs out of the network. To suppress this, mark the corresponding checkbox.

Enter the number of backups you wish to hold in the 'Quantity' box. As this number is reached, the oldest entry will be overwritten.

For an automatic backup, mark the 'Backup Automatically' checkbox, and also the checkbox below if you wish to do this without prompting.

Check the address of the backup path and its server synonym, then click 'Execute Now' to confirm your settings.



The backup can be loaded back onto the database server if anything goes wrong. The first choice here is the 'SQL server management studio'.

You can also use the 'From Backup' button under 'Create Database'. Pay attention to the location of the backup; you don't want to overwrite the wrong file. To be certain, copy the backup to your local folder and then activate the restore point. When you first use the function a note will appear to choose the location. Select between the server and workstation. If you wish to use the server, you must know

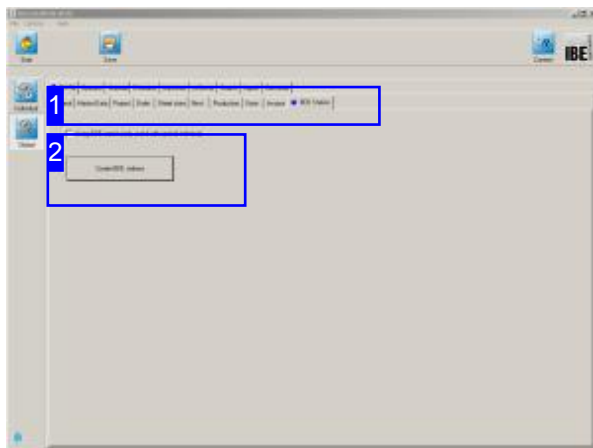


the complete drive path!

Click 'From Backup File' to restore your database.

PDA-Station

Production Data Acquisition on a Workstation.



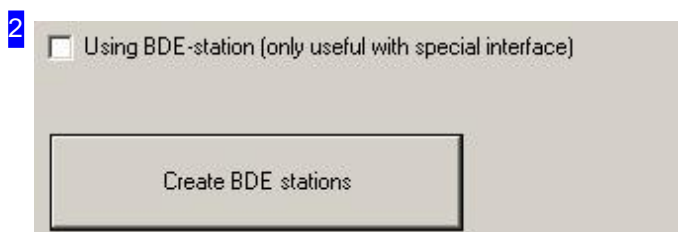
A summary of the relevant parts can be displayed in AV32 under the folders 'order' and 'production'. There is respectively a 'PDA-station' button. To create a PDA-station, select under [Common Settings], [Config] [PDA station]. Click on 'Create PDA station' and a dialog opens where you can create and maintain the PDA stations.

PDA stations can be managed with the production data acquisition (PDA), which are involved in the work/manufacturing process in the most diverse places. Any data can be recorded at each station, for example, by a hand-held scanner. Thus, e.g. all parts can then be scanned if they carry a barcode label, at the various stations.

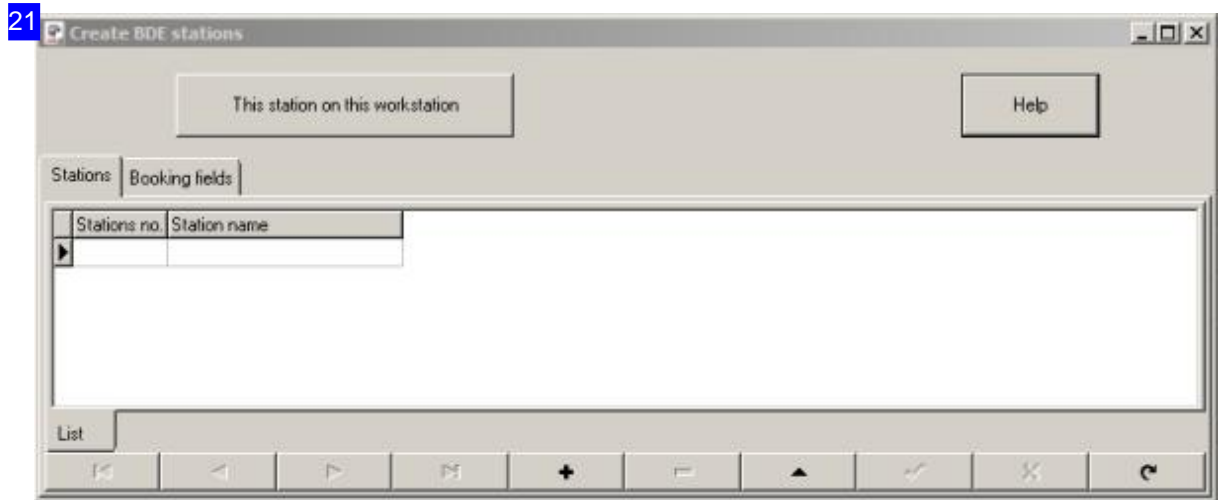
The look out is determined in a customized interface and must be adjusted by programming accordingly.



Select the tabs [Config] (above) and [BDE station] (below) in the header to manage the BDE stations.



Click on 'Create PDA station' and a dialog opens where you can create and maintain the PDA stations.

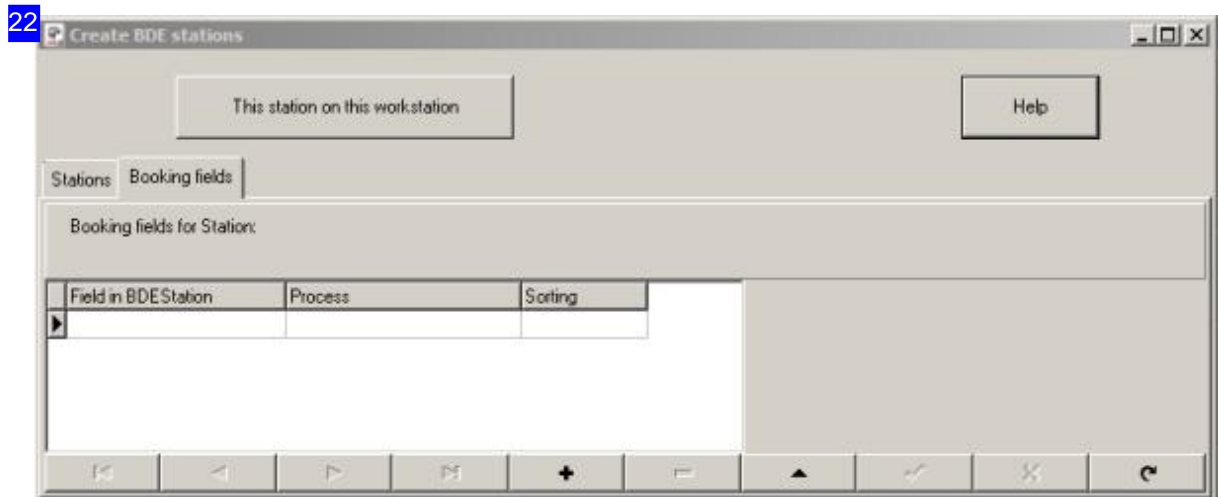


The stations are allocated to a workplace. Click on [This work at this station] and the work is set to the selected station.

All stations are listed on the [Stations] tab. Each station must be assigned to a workstation, at which data collection is carried out. All entries are then processed by a special interface at the workstation.

You can define fields on the [Booking Fields] tab, where data can be booked for the PDA interface by the workstation.

Use the 'Help' button at the top right for detailed information.



You can define fields on the [Booking Fields] tab, where data can be booked for the PDA interface through the workstation. The fields are part of the 'BDESTATIONEN' table. The 'process' column allows you to enter a text, which is displayed as a note on the PDA station. All stations are listed on the [Stations] tab.

Operating as Server

AV32 works as a service provider for Externals.



Select the menu item [Options] [Start Server operating] in the startup form to put a workstation in the server mode. Go to this field of work, in which you get informations about the machines in server mode. Here are just machines shown that are unlocked for server operation. Activation takes place for the machines under [Common Settings][Machine][Machine].

Stop the server operation by clicking the stop button [1].

An AV32 workstation can be set in a server mode. This option requires an interface to an application for the import or export of orders and production plans. Parts are then automatically nested during operation for certain machines and placed into the production.

If this operation is started, the AV32 remains in this mode until the operation is explicitly stopped. Do you want a permanent application, enlist the AV32 in the Startup folder of Windows® to activate the program on system startup.



Clicking on this button will stop the server operation and return to the normal program flow of the AV32 . The change in the server operation is then possible at any time.



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This program is license-protected software.



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