



Parameterisation software

**PC300.NET**

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099-008096-EW501

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# General instructions

## CAUTION



### Read the operating instructions!

The operating instructions provide an introduction to the safe use of the products.

- Read the operating instructions for all system components!
- Observe accident prevention regulations!
- Observe all local regulations!
- Confirm with a signature where appropriate.

## NOTE



**In the event of queries on installation, commissioning, operation or special conditions at the installation site, or on usage, please contact your sales partner or our customer service department on +49 2680 181-0.**

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# 1 Contents

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Contents</b>                                  | <b>3</b>  |
| <b>2</b> | <b>Safety instructions</b>                       | <b>5</b>  |
| 2.1      | Notes on the use of these operating instructions | 5         |
| 2.2      | For your safety                                  | 6         |
| <b>3</b> | <b>Intended use</b>                              | <b>7</b>  |
| 3.1      | Applications                                     | 7         |
| <b>4</b> | <b>Installation</b>                              | <b>8</b>  |
| 4.1      | System requirements                              | 8         |
| 4.2      | Software installation                            | 9         |
| 4.2.1    | Microsoft .NET 2.0 Framework                     | 9         |
| 4.2.2    | General  | 9         |
| 4.2.3    | PC300.Net  | 10        |
| <b>5</b> | <b>Description</b>                               | <b>13</b> |
| 5.1      | Window concept                                   | 13        |
| <b>6</b> | <b>Design and function</b>                       | <b>14</b> |
| 6.1      | General  | 14        |
| 6.2      | Establishing the connections                     | 15        |
| 6.3      | General  | 16        |
| 6.3.1    | General  | 16        |
| 6.3.2    | Definition of terms                              | 16        |
| 6.4      | Toolbar  | 17        |
| 6.5      | Windows in the working area                      | 18        |
| 6.5.1    | General  | 18        |
| 6.5.2    | JOB  | 18        |
| 6.5.2.1  | MIG/MAG welding                                  | 18        |
| 6.5.2.2  | TIG welding                                      | 19        |
| 6.5.3    | Program sequence                                 | 20        |
| 6.5.3.1  | MIG/MAG welding                                  | 20        |
| 6.5.3.2  | TIG welding                                      | 22        |
| 6.5.3.3  | Plasma welding                                   | 23        |
| 6.5.4    | Expert constants                                 | 24        |
| 6.5.4.1  | MIG/MAG welding                                  | 24        |
| 6.5.4.2  | TIG welding/plasma welding                       | 25        |
| 6.5.5    | Expert variables                                 | 26        |
| 6.5.5.1  | MIG/MAG welding                                  | 26        |
| 6.5.5.2  | TIG welding/plasma welding                       | 27        |
| 6.6      | Data transfer                                    | 28        |
| 6.6.1    | General  | 28        |
| 6.6.2    | From the welding machine                         | 28        |
| 6.6.3    | To the welding machine                           | 29        |
| 6.7      | Comparing JOBs                                   | 30        |
| 6.8      | Options  | 31        |
| 6.8.1    | General  | 31        |
| 6.8.2    | Settings   | 31        |
| 6.8.3    | Synchronising the database                       | 32        |
| 6.8.3.1  | Opening the second database                      | 32        |
| 6.8.3.2  | Selecting the data records                       | 32        |
| 6.8.3.3  | Assigning the new position                       | 33        |
| 6.8.4    | Measuring device                                 | 34        |
| <b>7</b> | <b>Appendix A</b>                                | <b>36</b> |
| 7.1      | EWMBACK.Net                                      | 36        |
| 7.1.1    | Window concept                                   | 36        |
| 7.1.2    | Starting the back-up                             | 36        |
| 7.1.3    | Starting the re-import                           | 36        |

|   |           |
|---|-----------|
| <b>8 Appendix B</b> .....               | <b>37</b> |
| 8.1 Script control .....                | 37        |
| <b>9 Appendix C</b> .....               | <b>40</b> |
| 9.1 Additional keyboard functions ..... | 40        |
| <b>10 Appendix D</b> .....              | <b>41</b> |
| 10.1 Overview of EWM branches.....      | 41        |

## 2 Safety instructions

### 2.1 Notes on the use of these operating instructions

#### DANGER

**Working or operating procedures which must be closely observed to prevent imminent serious and even fatal injuries.**

- Safety notes include the "DANGER" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol on the edge of the page.

#### WARNING

**Working or operating procedures which must be closely observed to prevent serious and even fatal injuries.**

- Safety notes include the "WARNING" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol in the page margin.

#### CAUTION

**Working or operating procedures which must be closely observed to prevent possible minor personal injury.**

- The safety information includes the "CAUTION" keyword in its heading with a general warning symbol.
- The risk is explained using a symbol on the edge of the page.

#### CAUTION

**Working and operating procedures which must be followed precisely to avoid damaging or destroying the product.**

- The safety information includes the "CAUTION" keyword in its heading without a general warning symbol.
- The hazard is explained using a symbol at the edge of the page.

#### NOTE

**Special technical points which users must observe.**

- Notes include the "NOTE" keyword in the heading without a general warning symbol.

Instructions and lists detailing step-by-step actions for given situations can be recognised via bullet points, e.g.:

- Insert the welding current lead socket into the relevant socket and lock.

| Symbol | Description   |
|--------|---|
|        | Press   |
|        | Do not press  |
|        | Turn  |
|        | Switch  |
|        | Switch off machine  |
|        | Switch on machine   |
|        | ENTER (enter the menu)  |
|        | NAVIGATION (Navigating in the menu)                               |
|        | EXIT (Exit the menu)  |
|        | Time display (example: wait 4s/press)                             |
|        | Interruption in the menu display (other setting options possible) |
|        | Tool not required/do not use                                      |
|        | Tool required/use   |

## 2.2 For your safety

### WARNING



#### Validity of this document!

This document is only valid in combination with the operating instructions for the power source being used (welding machine)!

- Read the operating instructions, in particular the safety instructions for the power source (welding machine)!

### NOTE



Comprehensive and additional welding safety precautions can be found in the operating instructions for the welding machine. A list of the standards and specifications currently in force can also be found in these instructions.



You should be familiar with the basic functions of the operating system and a PC and should have some experience in using software.

### 3 Intended use

This software has been created according to the state of the art and the relevant rules and standards. It must only be operated in line with the instructions on correct usage.

#### WARNING



**Hazards due to improper usage!**

**Hazards may arise for persons, animals and material objects if the equipment is not used correctly. No liability is accepted for any damages arising from improper usage!**

- The equipment must only be used in line with proper usage and by trained or expert staff!
- Do not modify or convert the equipment improperly!

### 3.1 Applications

This software has been developed for data exchange with welding machines in the Tetric, alpha Q and Phoenix series.

Basic functions:

- Create, revise and manage JOBs and welding programs
- Documentation and monitoring of welding work
- Create and re-import data back-ups

## 4 Installation

### NOTE



Before the installation, uninstall any existing older version of the software where applicable.

If you have purchased the software together with the EWM Tablet PC RC300, the installation steps given below do not apply.

Your RC300 is already pre-installed and configured. However, we do recommend copying the software from the CD onto a USB stick so that you can re-install the driver components or software yourself if necessary.

### 4.1 System requirements

- Windows Vista, Windows XP SP2, Windows 2000 SP4
- .Net Framework 2.0 installed (will be installed at the same time where applicable)
- Intel Pentium (or comparable) CPU with min. 1.7GHz
- min. 512MB RAM
- min. 300MB free hard disk space
- CD-ROM drive for installing the software
- free USB 1.1 or USB 2.0 port for connecting the welding machine

or

- EWM Tablet PC RC300



## 4.2 Software installation

### 4.2.1 Microsoft .NET 2.0 Framework

#### NOTE

- ☞ **The .NET framework is a Microsoft function upgrade for Windows operating systems and is essential for the PC300.Net software to function.**
  - Questions on this update should be directed to the manufacturer (Microsoft) where applicable.
  - If .NET Framework 2.0 is not already installed on your PC, this add-on will be installed along with the program.

### 4.2.2 General

#### NOTE

- ☞ **Before the installation, close all other open programs where applicable.**
  - In principle it is sufficient simply to follow the instructions in the installation wizard and to confirm the default settings.
  - Experienced users can modify the presets to their specific requirements where appropriate.

- Start your PC and wait until Windows is fully loaded.
- Insert the software CD into your CD or DVD drive.
- The installation will start automatically after a few seconds.

#### NOTE

- ☞ **If the Windows “autorun” option is switched off on the CD or DVD drive, start the installation by running the “setup.exe” program in the root directory of the CD or DVD**



Figure 4-1

- In the drop-down box on the left-hand side of the window, select the language version in which you want to install the PC300.Net software. The selection also determines the language during the subsequent installation process.
- Confirm your selection by pressing the button labelled “OK” on the right-hand side of the window.

### 4.2.3 PC300.Net

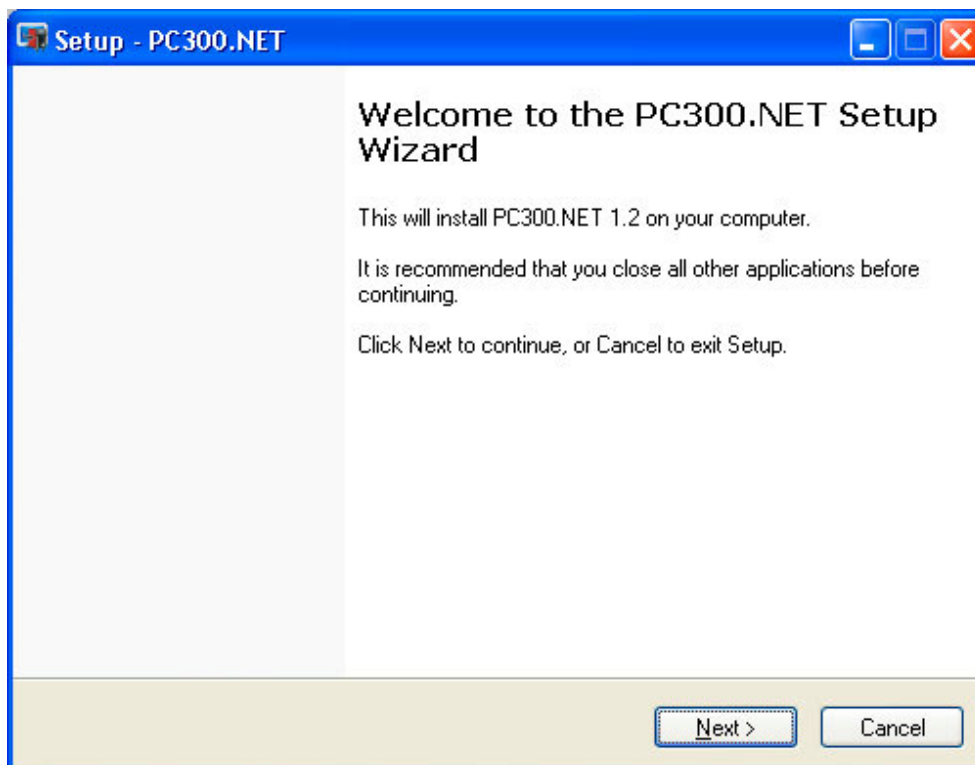


Figure 4-2

- Click the "Next" button in the left-hand, lower part of the window.

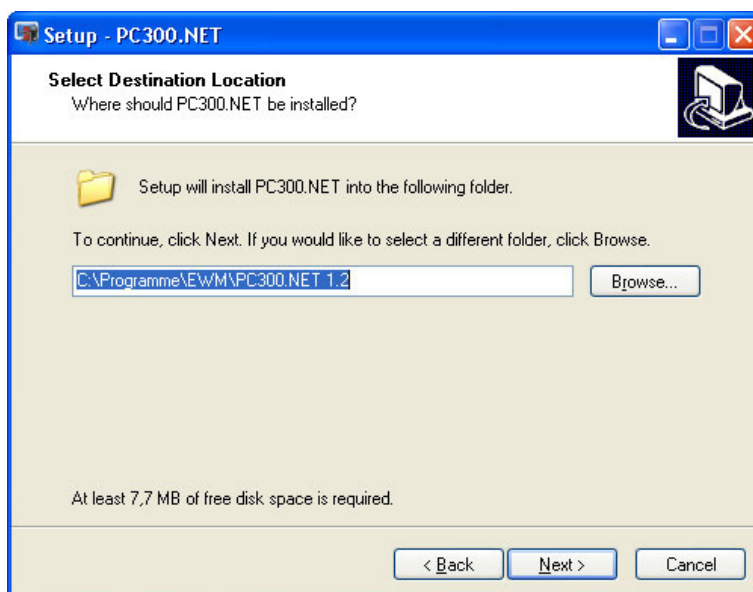


Figure 4-3

- The installation folder for the software can be changed by manually entering the new details in the editing box or by clicking the "Search" button.
- Then click the "Next" button to continue the installation.

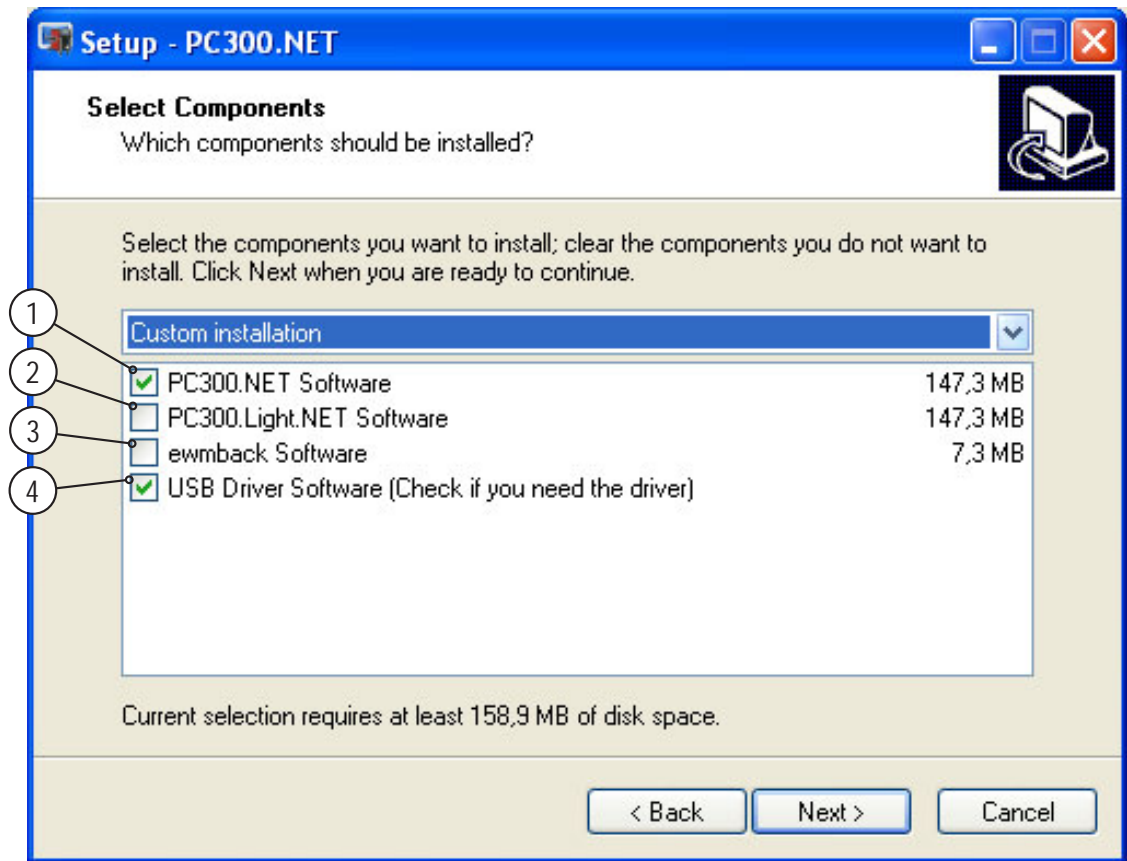


Figure 4-4

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>PC300.NET Software</b><br>Full version of the software                            |
| 2    |        | <b>PC300.Light.NET Software</b><br>Reduced-functionality version of the software     |
| 3    |        | <b>ewmback Software</b><br>Tool for the simple creation and restoring of JOB backups |
| 4    |        | <b>USB driver software</b><br>Required for initial installation.                     |

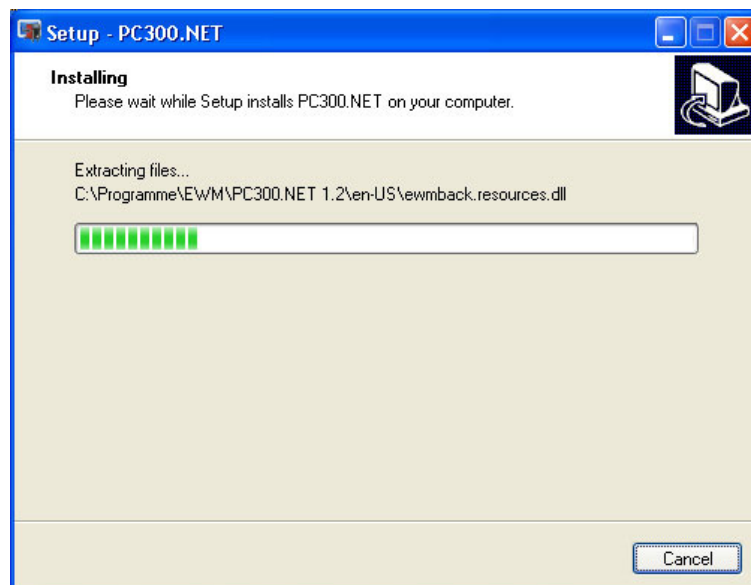


Figure 4-5

- The progress window keeps you informed of the status of the installation operation.

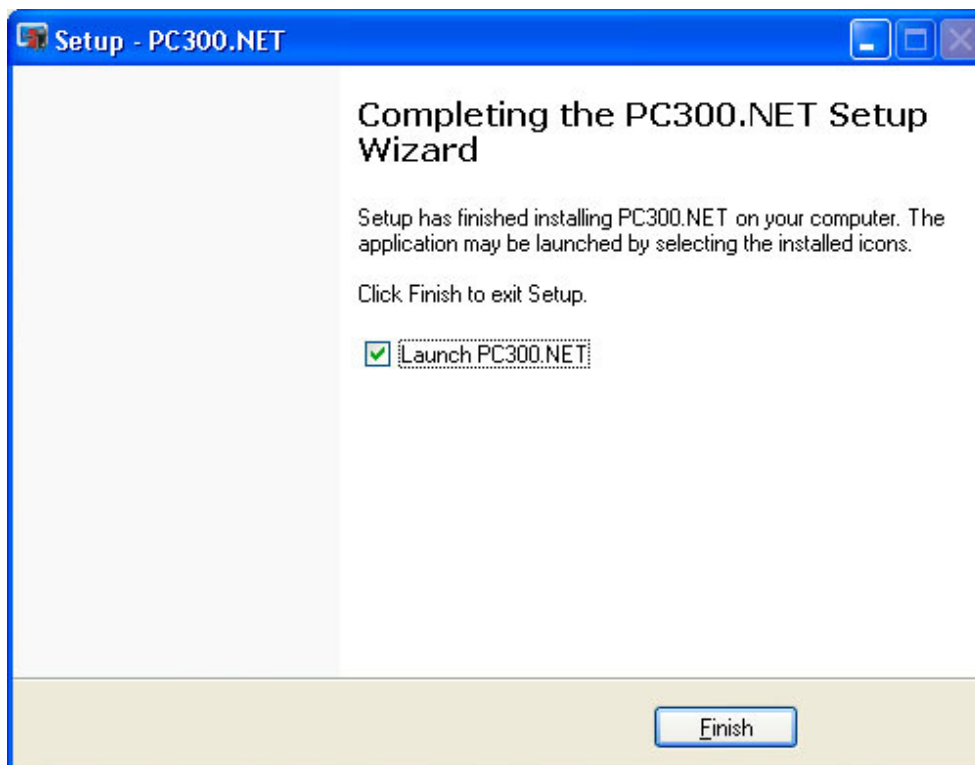


Figure 4-6

- To complete the installation, press the "Close" button.
- You will find links to start the program in the start menu and on the desktop.
- If you do not want the software to be started immediately afterwards, uncheck the relevant option in this window

## 5 Description

### 5.1 Window concept

The program window is divided into different display and control elements which fulfil different tasks.

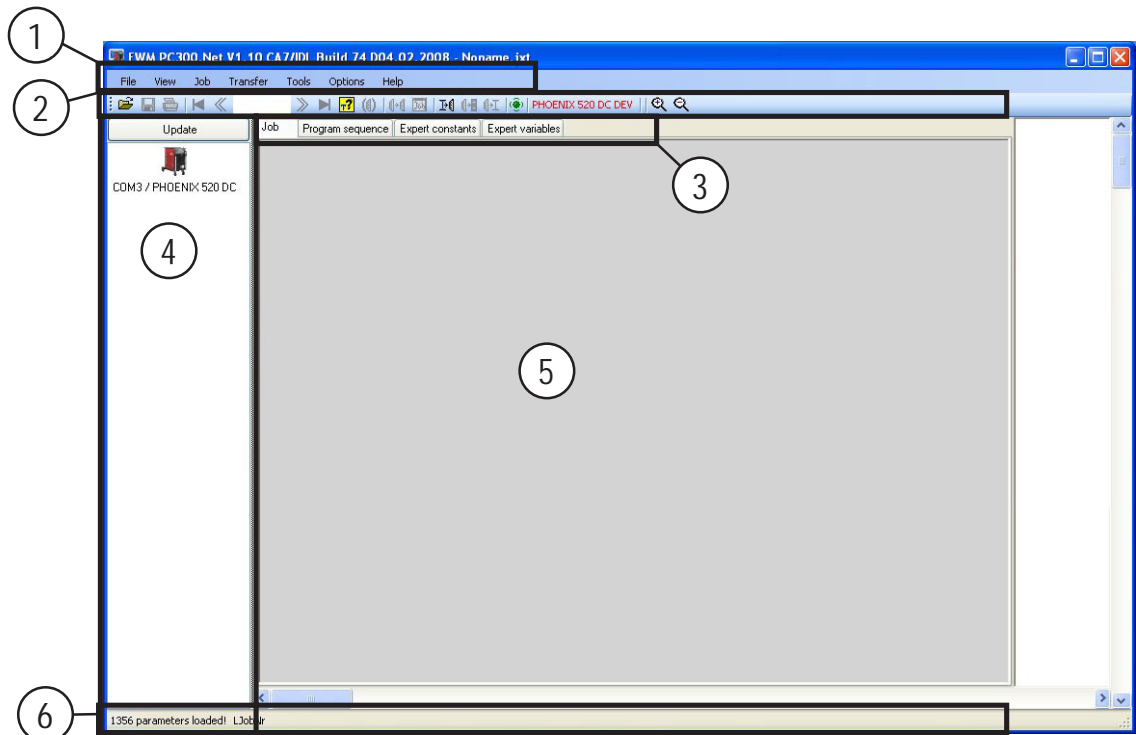


Figure 5-1

| Item | Symbol             | Description  |
|------|--------------------|--|
| 1    |                    | <b>Main menu</b><br>Contains options for opening program functions, divided by area.   |
| 2    |                    | <b>Toolbar</b><br>Graphical buttons for frequently used functions in the program   |
| 3    |                    | <b>Tab</b><br>Buttons for switching between the windows in the working area  |
| 4    |                    | <b>Sidebar</b><br>Used to display and select the machines connected to the interfaces.   |
|      | Greyed out symbol: | No machine connected   |
|      | Colour symbol:     | Machine connected  |
| 5    |                    | <b>Working area</b><br>Contains displays, buttons and other operating elements for the easy creation and editing of JOB databases. |
| 6    |                    | <b>Status bar</b><br>Displays status information.  |

## 6 Design and function

### 6.1 General



#### DANGER



#### Risk of injury from electric shock!

#### Contact with live parts, e.g. welding current sockets, is potentially fatal!

- Follow safety instructions on the opening pages of the operating instructions.
- Commissioning may only be carried out by persons who have the relevant expertise of working with arc welding machines!
- Connection and welding leads (e.g. electrode holder, welding torch, workpiece lead, interfaces) may only be connected when the machine is switched off!



#### CAUTION



#### Risk of burns on the welding current connection!

#### If the welding current connections are not locked, connections and leads heat up and can cause burns, if touched!

- Check the welding current connections every day and lock by turning in clockwise direction, if necessary.

#### CAUTION




#### Using protective dust caps!

#### Protective dust caps protect the connection sockets and therefore the machine against dirt and damage.

- The protective dust cap must be fitted if there is no accessory component being operated on that connection.
- The cap must be replaced if faulty or if lost!

**6.2 Establishing the connections**

**NOTE**

 **All connections to be made with the power off!**  
The blue marking on the RS232 connection cable should be pointing towards the welding machine.

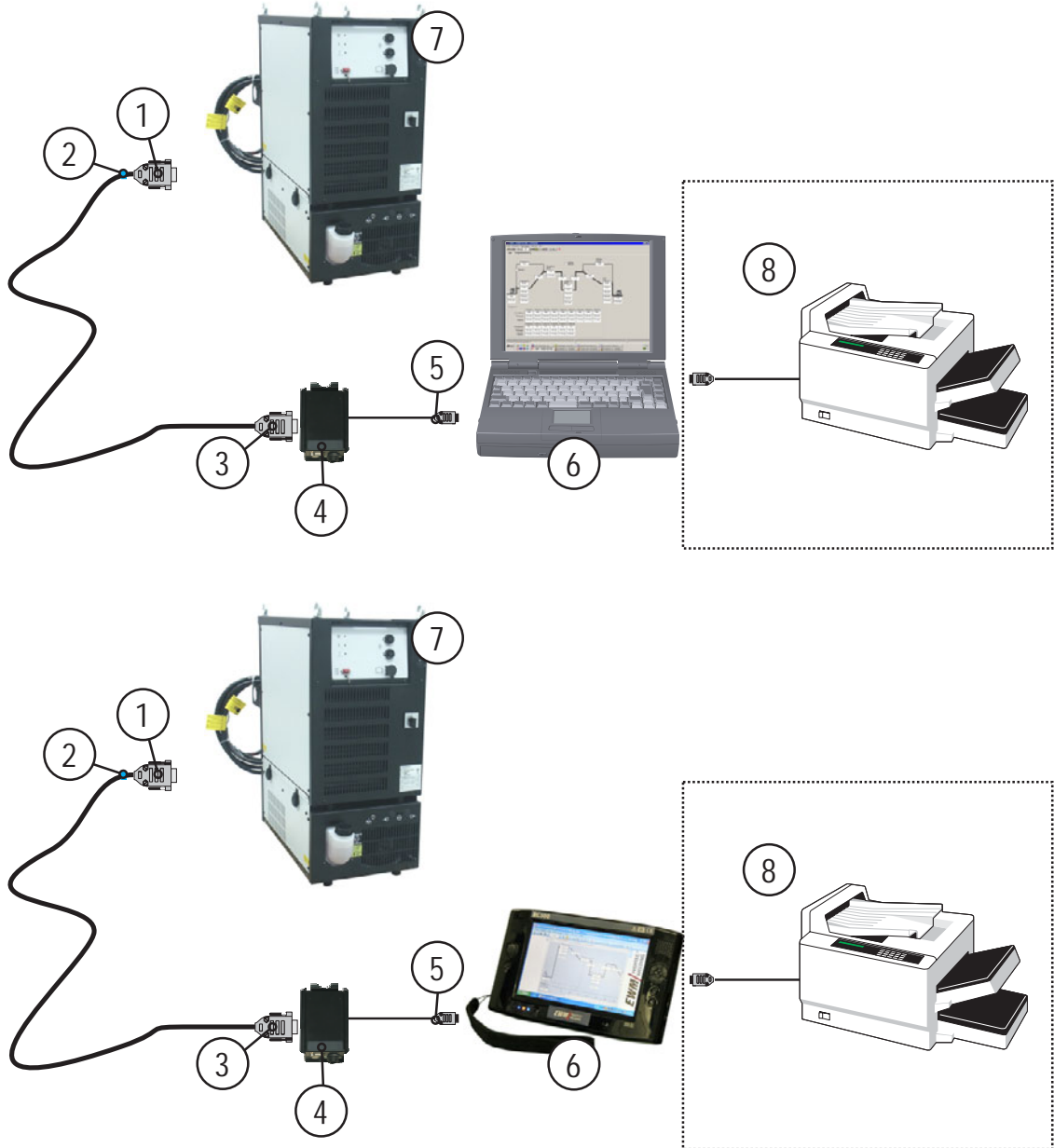


Figure 6-1

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | D-Sub plug, 9-pole   |
| 2    |        | RS232 connection cable with blue marking   |
| 3    |        | D-Sub plug, 9-pole   |
| 4    |        | SECINT X10 USB   |
| 5    |        | USB plug with connection cable   |
| 6    |        | PC with PC300.NET software or tablet PC RC300  |
| 7    |        | TETRIX/PHOENIX welding machine with PC interface<br>(Connected to 9-pole D-Sub socket, see operating instructions for welding machine) |
| 8    |        | Printer for welding data documentation (optional)  |

- Connect 9-pole D-Sub plug to 9-pole D-Sub socket on the welding machine.
- Connect the 9-pole D-Sub plug to the SECINT X10 USB.
- Connect the USB plug on the SECINT X10 USB to the USB port on the PC.
- Where applicable, connect the printer to the PC according to the manufacturer's instructions.

## 6.3 General

### 6.3.1 General

The database for PC300.Net contains up to 256 data records; the same number of JOBs can be stored in the welding machine.

The first 128 of these are fixed JOBs, i.e. these data records can be changed, but are also permanently stored on the welding machine and can be reset at any time.

Free JOBs expand the scope of welding data, e.g. with special applications such as coldArc, forceArc, etc. or special applications created by the user. JOBs 129-256 are partially pre-assigned at the factory, but cannot be restored by a simple factory reset of the welding machine control.

JOBs defined by the user can be based on existing pre-defined JOBs or created as completely new JOBs.

The PC300.Net database is separate from the welding machine to ensure a high degree of operating security. At the heart of the communication is the transfer data record, via which the data exchange takes place. It is therefore integrated into the user interface to distinguish it from the other data records to avoid confusion.

For direct communication with connected welding machines, additional functions are integrated into the program.

### 6.3.2 Definition of terms

|                        |  |
|------------------------|--|
| <b>Database</b>        | The database for the PC300.Net software.<br>Here the data are stored, which can be edited, saved, loaded and transferred to or from the welding machines.  |
| <b>Data record</b>     | Individual entry in the database representing a JOB on a welding machine.  |
| <b>JOB</b>             | Corresponds to a data record in the database. Contains all data required for the welding process on a welding machine. For example, wire thickness, process, current values.   |
| <b>Transfer mode</b>   | PC300.Net switches to transfer mode when an individual JOB has been transferred from or to the welding machine. The current data record is shown with "***" in the display.<br>In transfer mode, the displayed data record and JOB are synchronised in the welding machine; i.e. changes are transferred to the welding machine immediately. |
| <b>Block load mode</b> | Multiple JOBs are transferred from the welding machine as data records into the PC300.Net database.  |
| <b>Fixed JOBs</b>      | JOBs 1-128 are pre-assigned by the manufacturer with the optimum values and can be restored where necessary via changes using the welding machine control (factory reset).   |
| <b>Free JOBs</b>       | JOBs 129-256 can be created by the user or are pre-assigned at the factory with special applications.  |



## 6.4 Toolbar

### NOTE

Buttons which cannot be used in the current context are inactive and are shown in grey.



| Symbol | Function                     | Description   |
|--------|------------------------------|---|
|        | <b>Open file</b>             | Data records can be stored in a JOB file.<br>A dialogue window takes you to the required file.  |
|        | <b>Save</b>                  | Saves the current JOB data in a file based on a dialogue.   |
|        | <b>Print</b>                 | JOB data records are output to the printer  |
|        | <b>Navigate</b>              | Navigates through the current database: <ul style="list-style-type: none"> <li>• Show first data record</li> <li>• Go back one data record</li> <li>• Shows the data record number and permits direct input</li> <li>• Go forward one data record</li> <li>• Show last data record</li> </ul>                   |
|        | <b>New entry</b>             | Open the “New job” window to create a new database entry  |
|        | <b>Transfer mode</b>         | Opens the current transfer data record.<br>The data record number is assigned the addition “***” to identify the data record as a transfer data record.   |
|        | <b>Copy data record</b>      | Creates a copy of the current data record.<br>A valid JOB number is determined and the copy saved under that number, based on dialogues.  |
|        | <b>Delete data record</b>    | Removes the current data record from the database.  |
|        | <b>Load JOB from machine</b> | The JOB currently configured on the welding machine is imported.<br>The screen corresponding to the welding process is displayed, the JOB number of the transferred data record is displayed and transfer mode is activated.  |
|        | <b>Store data record</b>     | Stores the transfer data record in the database.<br>A valid JOB number is determined and the transfer data record is saved under that number, based on dialogues.<br>If a data record exists under that JOB number, it can be either moved or overwritten.<br>The data record is displayed in the working area. |
|        | <b>Save JOB to machine</b>   | The current data record is transferred to the welding machine; the corresponding JOB on the machine is overwritten.   |
|        | <b>Port status indicator</b> | Displays the connection status.<br>RED = connection lost.   |
|        | <b>Machine type</b>          | Display and configuration option of the machine type.<br>The database is pre-configured according to the setting.   |
|        | <b>Process</b>               | Display and switching of the welding process.   |
|        | <b>Zoom</b>                  | Enlarges or reduces the display in the working area.  |

## 6.5 Windows in the working area

### 6.5.1 General

#### NOTE



To be able to follow the examples given below better, it is advisable to open one of the JOB database files supplied. These can be found in the installation directory for the PC300.Net

You can switch between the windows by selecting the relevant tab. If there are no dialogue windows open, you can switch between the following windows and the tabs of the same names at any time:

- JOB
- Program sequence
- Expert constants
- Expert variables

### 6.5.2 JOB

#### 6.5.2.1 MIG/MAG welding

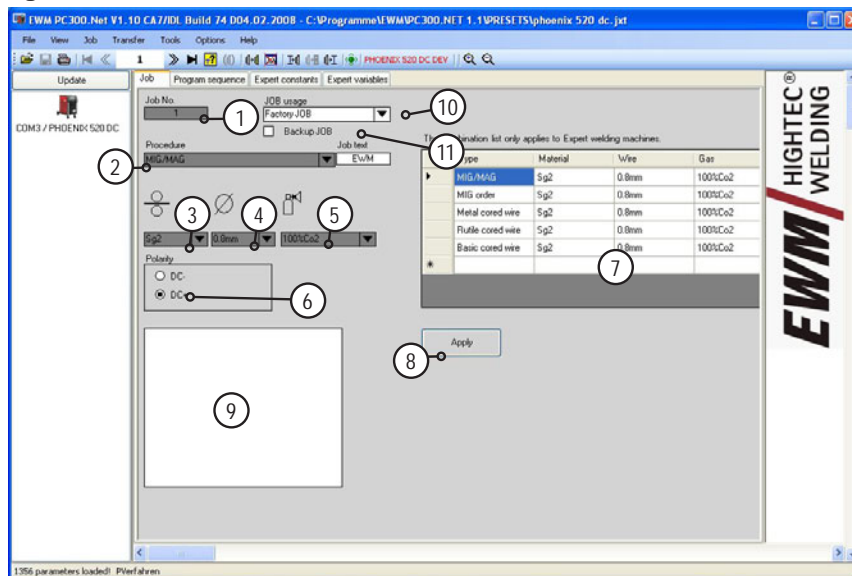


Figure 6-2

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>JOB number</b>  |
| 2    |        | <b>Welding procedure</b>   |
| 3    |        | <b>Welding wire material</b>   |
| 4    |        | <b>Welding wire diameter</b>   |
| 5    |        | <b>Shielding gas</b>   |
| 6    |        | <b>Welding torch polarity</b>  |
| 7    |        | <b>Examples as the basis for creating new JOBS</b>   |
| 8    |        | <b>Button for applying changes</b>   |
| 9    |        | <b>Notes on the JOB</b><br>Notes can be entered for each JOB in the database.  |
| 10   |        | <b>JOB use</b><br>Used to classify JOBS and simplifies the process of locating JOBS again, e.g. when being transferred to or from the welding machine. |
| 11   |        | <b>Backup JOB</b><br>Classifies the JOB as a "Backup JOB", which means that such files can be selected more easily when backing up and restoring JOBS. |

## 6.5.2.2 TIG welding

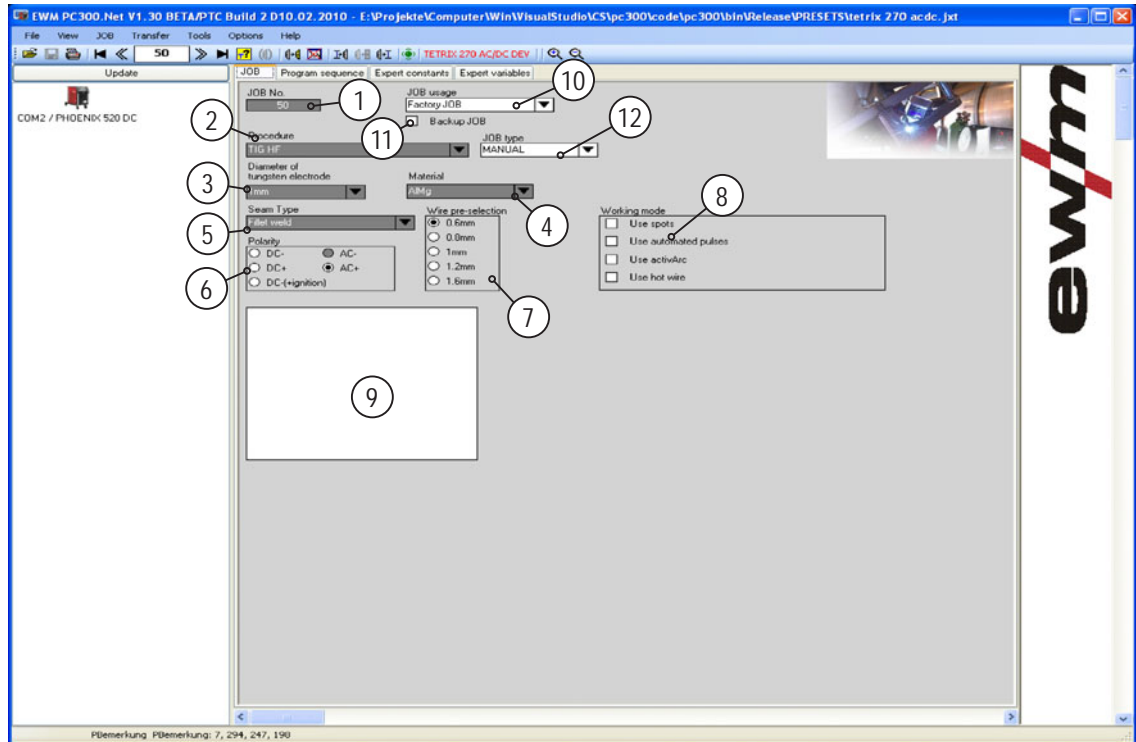


Figure 6-3

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>JOB number</b>  |
| 2    |        | <b>Welding procedure</b>   |
| 3    |        | <b>Tungsten electrode diameter</b>   |
| 4    |        | <b>Material</b>  |
| 5    |        | <b>Seam type</b>   |
| 6    |        | <b>Welding torch polarity</b>  |
| 7    |        | <b>Wire pre-selection</b>  |
| 8    |        | <b>Operating mode</b>  |
| 9    |        | <b>Notes on the JOB</b><br>Notes can be entered for each JOB in the database.  |
| 10   |        | <b>JOB use</b><br>Used to classify JOBS and simplifies the process of locating JOBS again, e.g. when being transferred to or from the welding machine. |
| 11   |        | <b>Backup JOB</b><br>Classifies the JOB as a "Backup JOB", which means that such files can be selected more easily when backing up and restoring JOBS. |
| 12   |        | <b>JOB type</b>  |

## 6.5.3 Program sequence

### 6.5.3.1 MIG/MAG welding

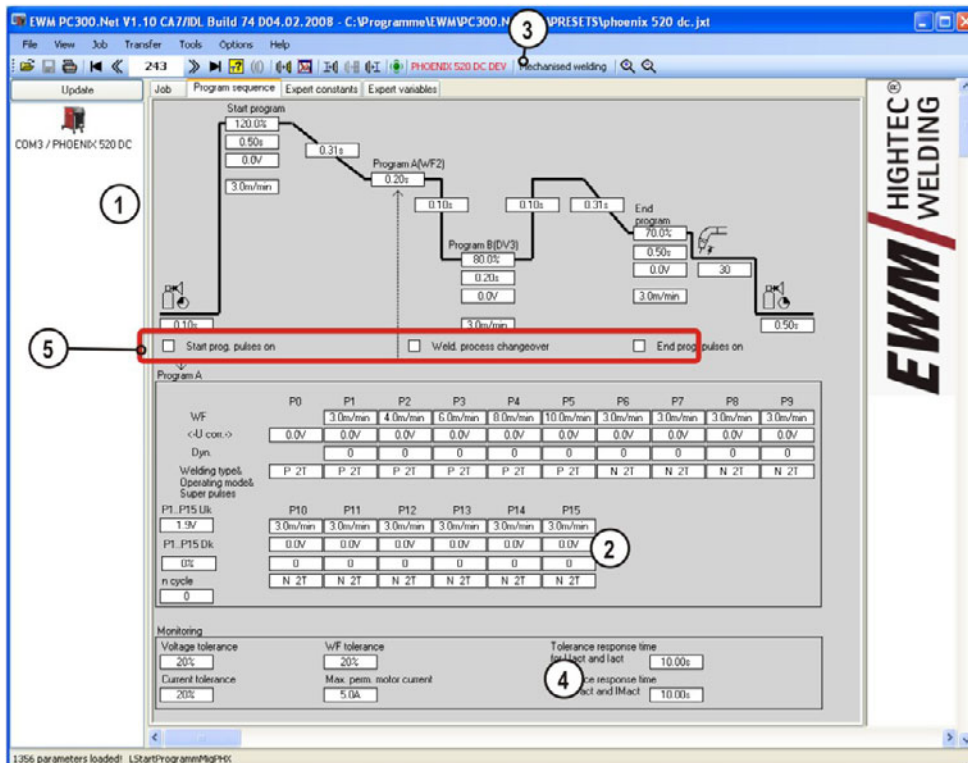
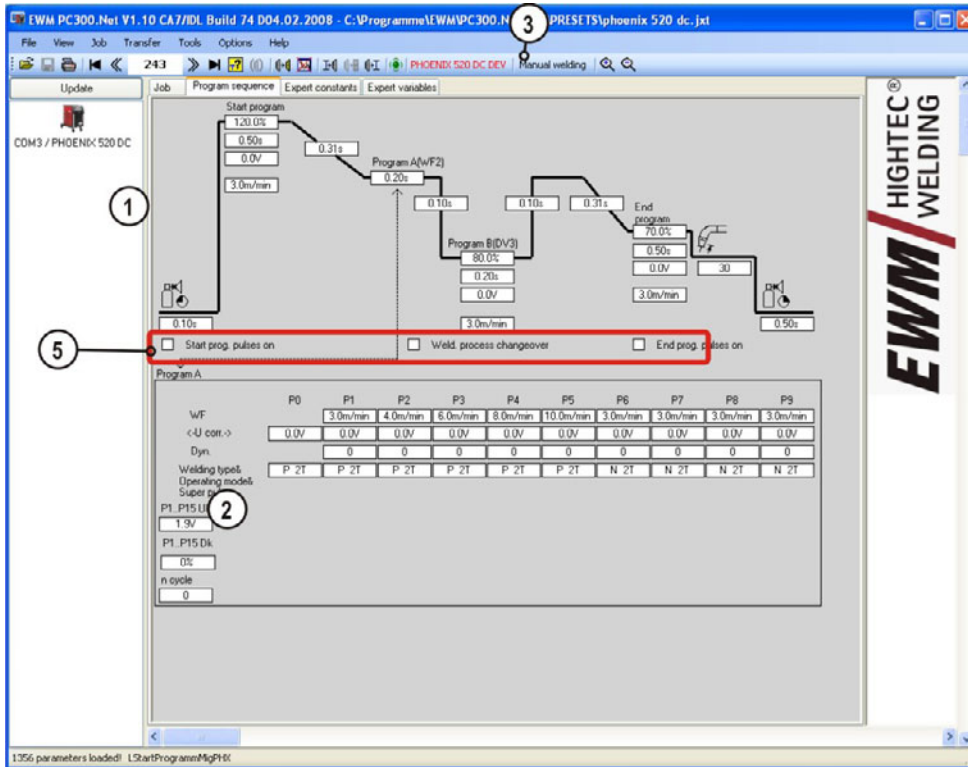


Figure 6-4

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>Program sequence</b><br>Representation of the welding sequence. Setting of parameters such as gas pre-flow and post-flow times, cold wire start time, welding and slope times.   |
| 2    |        | <b>Program parameters</b><br>Setting parameters such as wire speed, arc length correction, arc dynamics, welding type, torch operating mode   |
| 3    |        | <b>Button for switching manual welding/automated welding</b><br>Shows or hides additional parameters for automated welding.   |
| 4    |        | <b>Parameters for welding data monitoring</b>   |
| 5    |        | <b>Pulse function on/off (PULSE machine series only)</b><br>For the start program and end program, separate settings can be made as to whether a standard arc or pulse arc is used.<br>If the process changeover is activated, tapping in special latched mode will switch between the standard process and pulse arc process, or with super pulses, will switch automatically between the processes. |

## 6.5.3.2 TIG welding

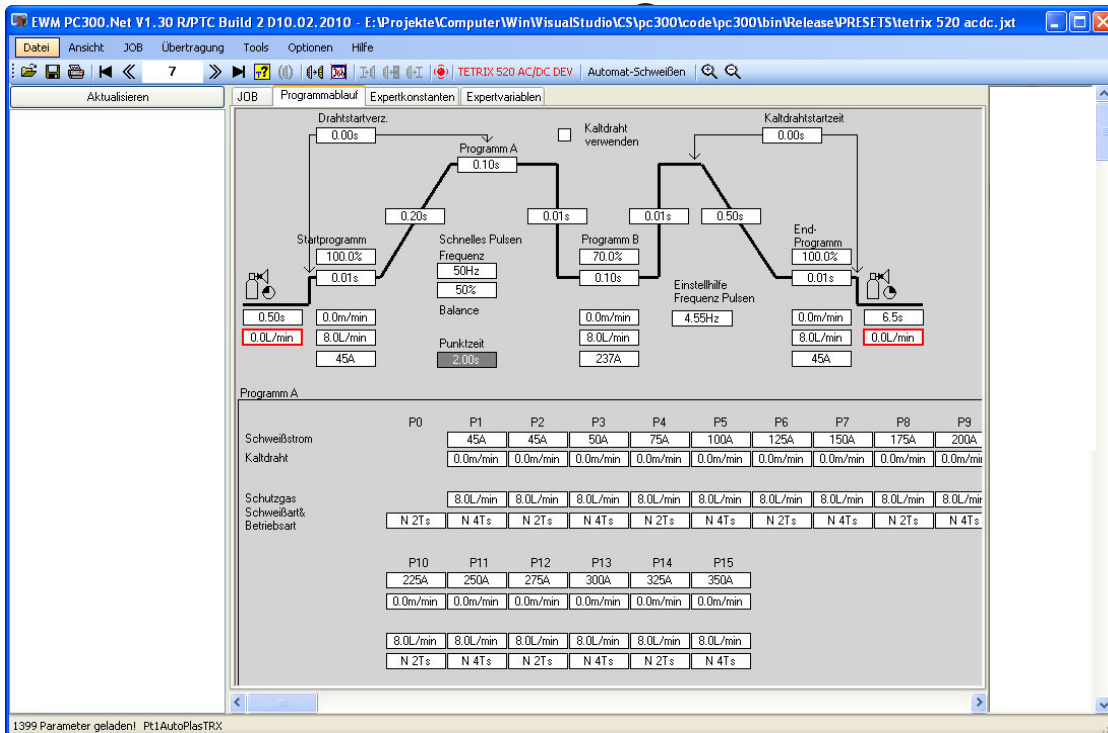
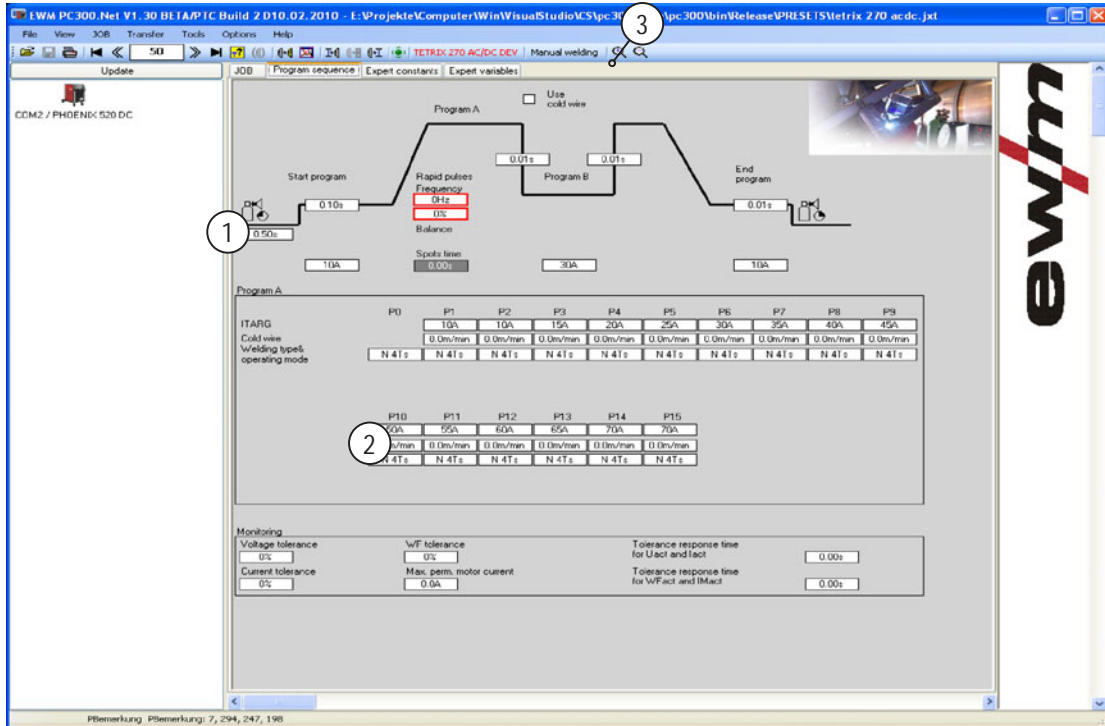


Figure 6-5

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>Program sequence</b><br>Representation of the welding sequence. Setting of parameters such as gas pre-flow and post-flow times, cold wire start time, welding and slope times. |
| 2    |        | <b>Program parameters</b><br>Setting parameters such as welding current, cold wire, shielding gas, welding type and operating mode for program 1-15                               |
| 3    |        | <b>Button for switching manual welding/automated welding</b><br>Shows or hides additional parameters for automated welding.   |

## 6.5.3.3 Plasma welding

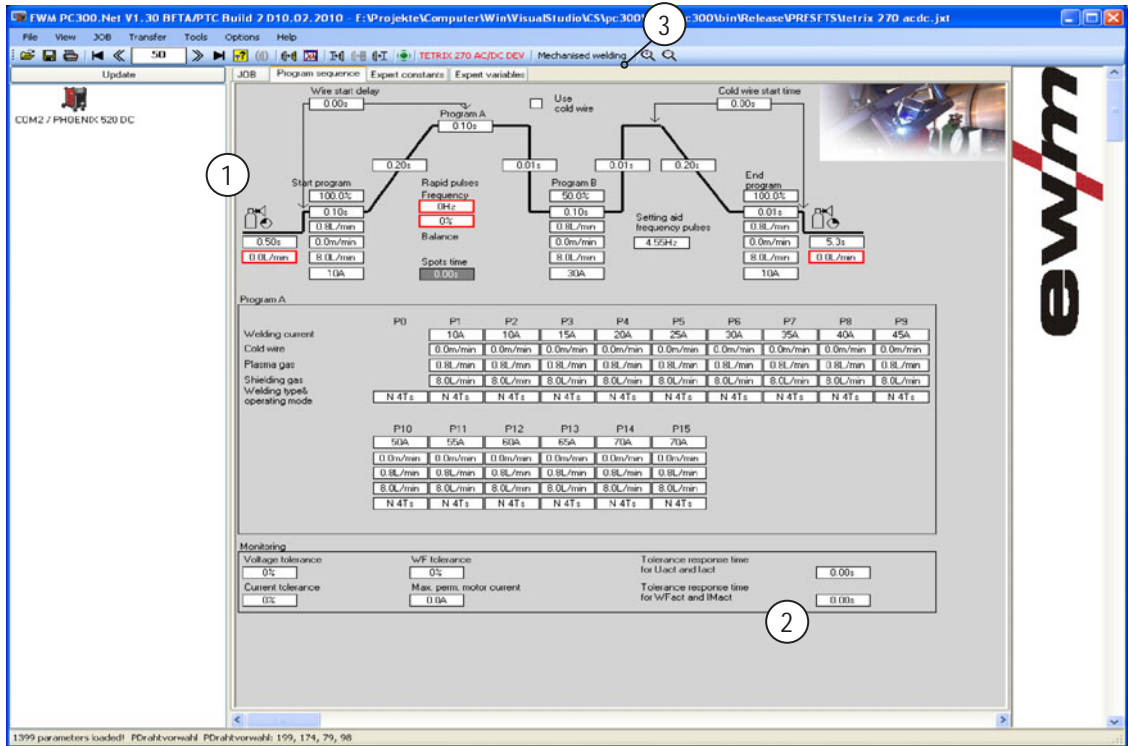


Figure 6-6

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>Program sequence</b><br>Representation of the welding sequence. Setting of parameters such as gas pre-flow and post-flow times, cold wire start time, welding and slope times. |
| 2    |        | <b>Program parameters</b><br>Setting parameters such as welding current, cold wire, shielding gas, welding type and operating mode for program 1-15                               |
| 3    |        | <b>Button for switching manual welding/automated welding</b><br>Shows or hides additional parameters for automated welding.   |



## 6.5.4 Expert constants

### 6.5.4.1 MIG/MAG welding

#### NOTE



The parameters have a fundamental effect on the welding workflow. Changes are only rarely required and should only be carried out by trained specialist staff.

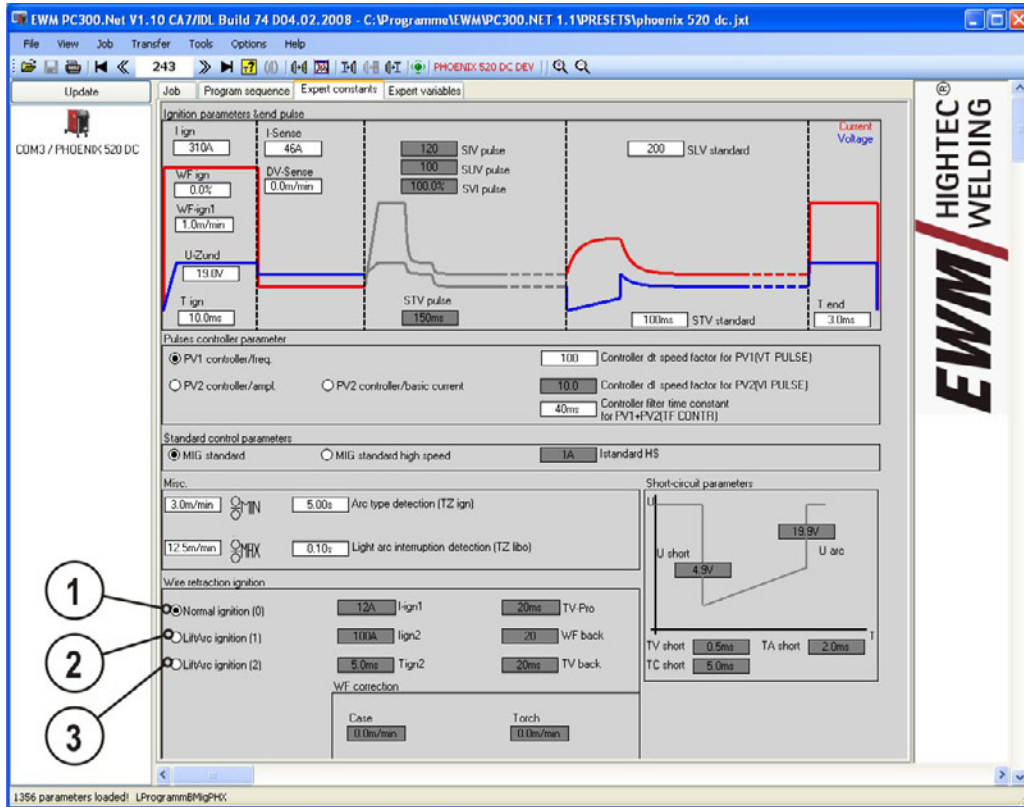


Figure 6-7

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>Standard MIG/MAG ignition</b>  |
| 2    |        | <b>LiftArc 1 ignition</b><br>The wire feed stops and reverses when the wire makes contact with the workpiece. The arc ignites when the wire leaves the workpiece again. |
| 3    |        | <b>LiftArc 2 ignition</b><br>The wire feed stops when the wire makes contact with the workpiece. The arc ignites when the torch is moved away.                          |



6.5.4.2 TIG welding/plasma welding

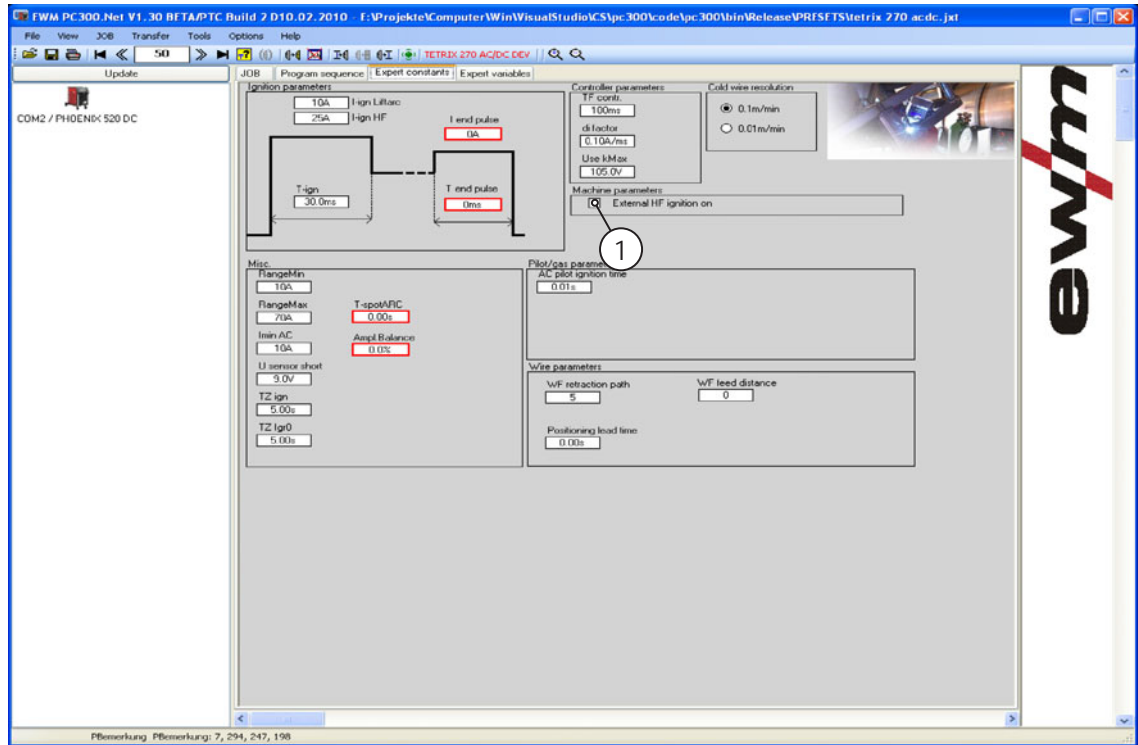


Figure 6-8

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>External HF ignition on</b><br>Use external ignition unit. |

## 6.5.5 Expert variables

### 6.5.5.1 MIG/MAG welding

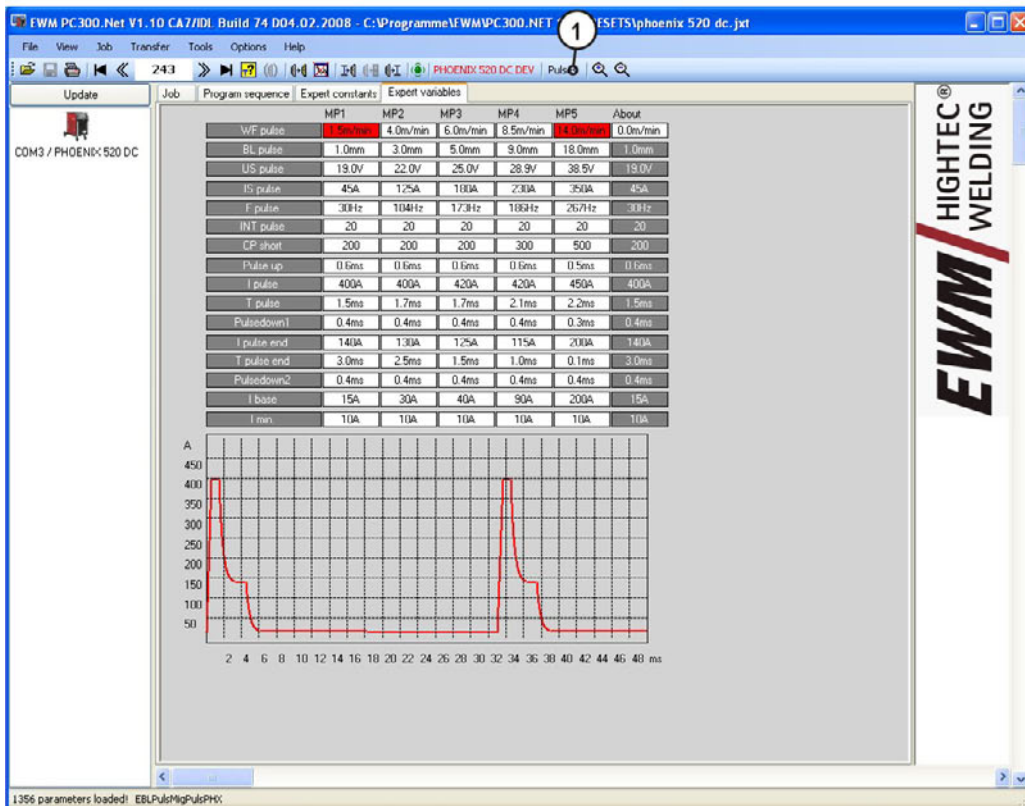
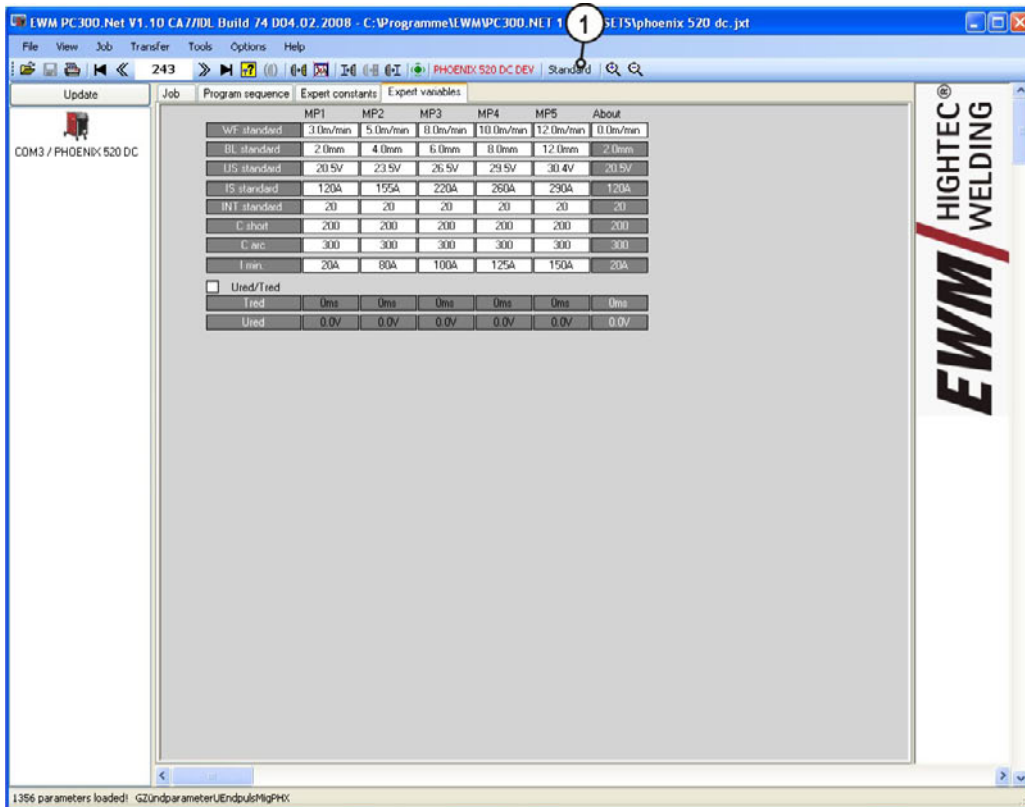


Figure 6-9

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | Button for switching between welding parameters as defaults, or according to the welding machine set, including coldArc and pulse welding. |

6.5.5.2 TIG welding/plasma welding

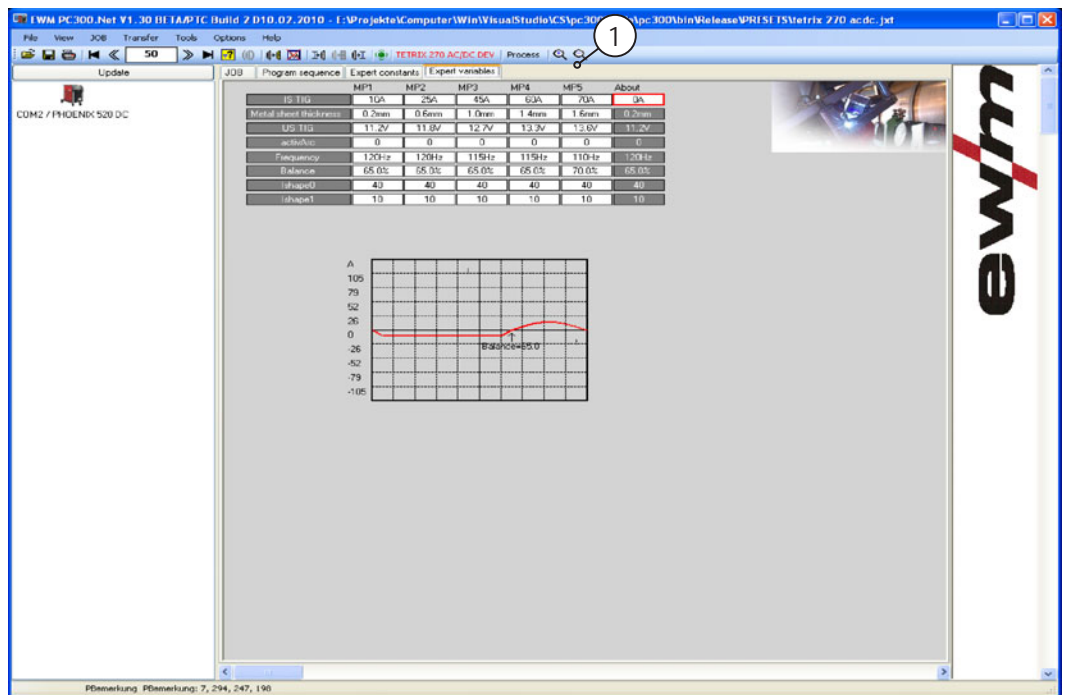
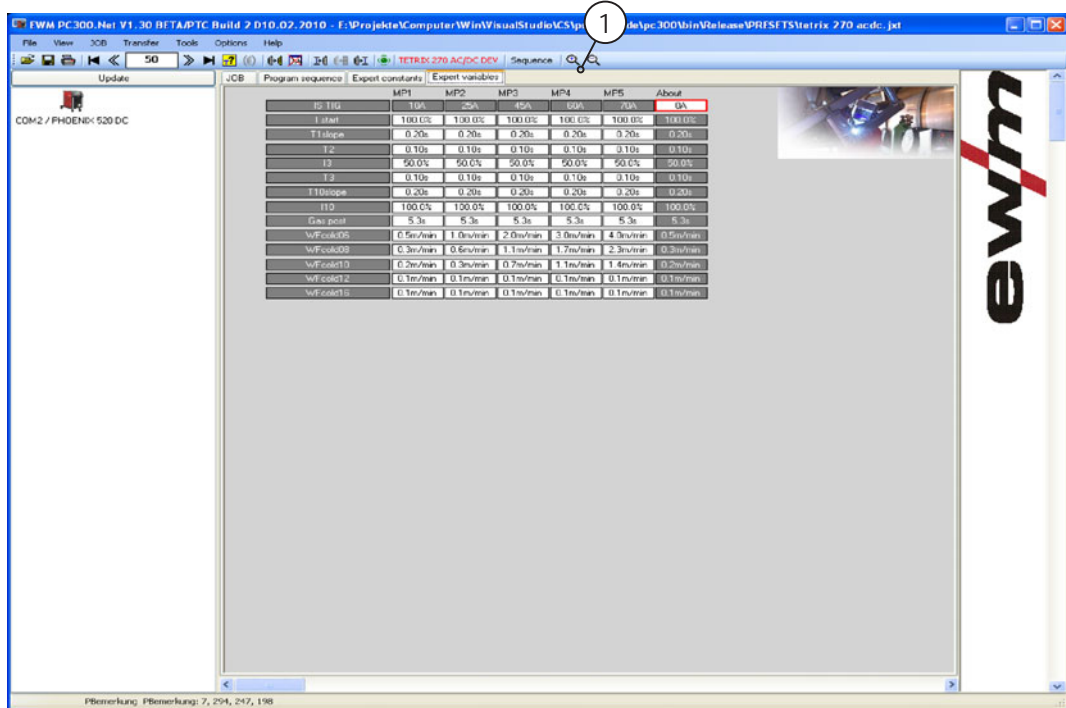


Figure 6-10

| Item | Symbol | Description                                       |
|------|--------|---|
| 1    |        | Button for switching between sequence and process |

## 6.6 Data transfer

### 6.6.1 General

**NOTE**

The transfer of the JOB data between the welding machine and the PC is carried out after a connection and after selecting “Apply”, “Load from machine” or “Save to machine” in the main menu.

### 6.6.2 From the welding machine

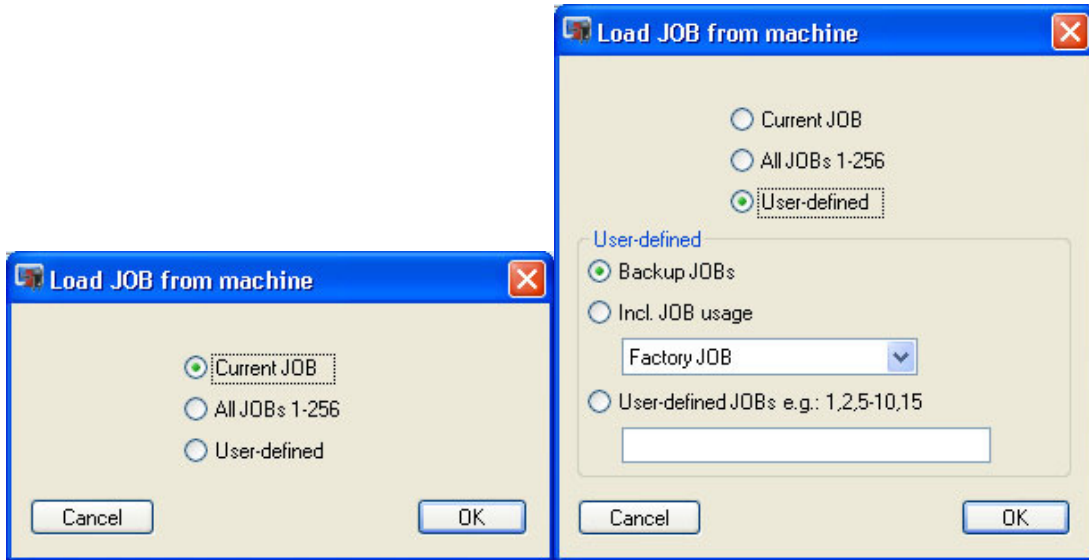


Figure 6-11

- Select whether you want to transfer the current JOB, all fixed, all free, all or a user-defined selection of JOBs from the welding machine to the software.
- When selecting user-defined JOBs the window is expanded, which means that the JOBs defined as backup JOBs and JOBs marked with a special JOB use, as well as user-defined JOB sections, can be selected. These are comma-separated, or marked using hyphens. "1, 2, 5-10, 15" transfers JOBs 1 and 2, JOBs 5 to 10 and JOB 15, for example.

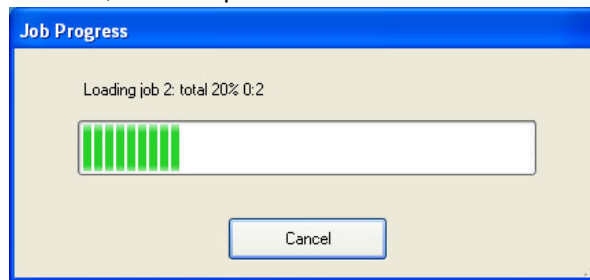


Figure 6-12

- The progress is displayed, and the action can be cancelled ahead of time using the “Cancel” button if appropriate.

### 6.6.3 To the welding machine

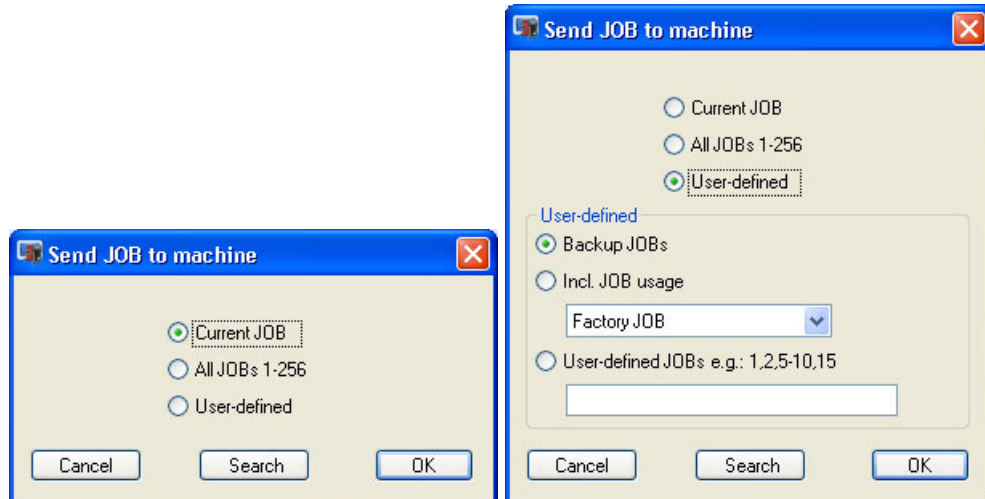


Figure 6-13

- Select whether you want to transfer the current, all or a user-defined list to the welding machine.
- When selecting user-defined JOBS the window is expanded, which means that the JOBS defined as backup JOBS and JOBS marked with a special JOB use, as well as user-defined JOB sections, can be selected. These are comma-separated, or marked using hyphens. "1, 2, 5-10, 15" transfers JOBS 1 and 2, JOBS 5 to 10 and JOB 15, for example.

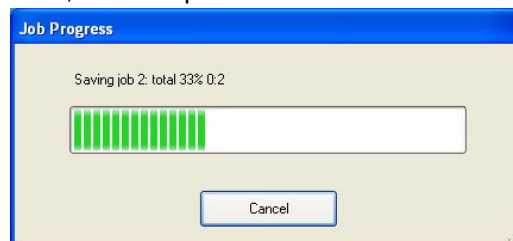


Figure 6-14

- The progress is displayed, and the action can be cancelled ahead of time using the "Cancel" button if appropriate.

### 6.7 Comparing JOBS

In the main menu under “Tools” you will find the “Compare JOBS” menu option.

If the comparison list is not displayed, it will be displayed after the first JOB is added.

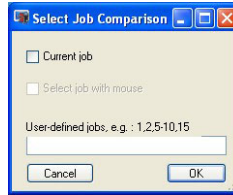


Figure 6-15

- Select whether only the current selection of JOBS or a user-defined set of JOBS are to be added to the comparison list. Confirm the dialogue window with the “OK” button.

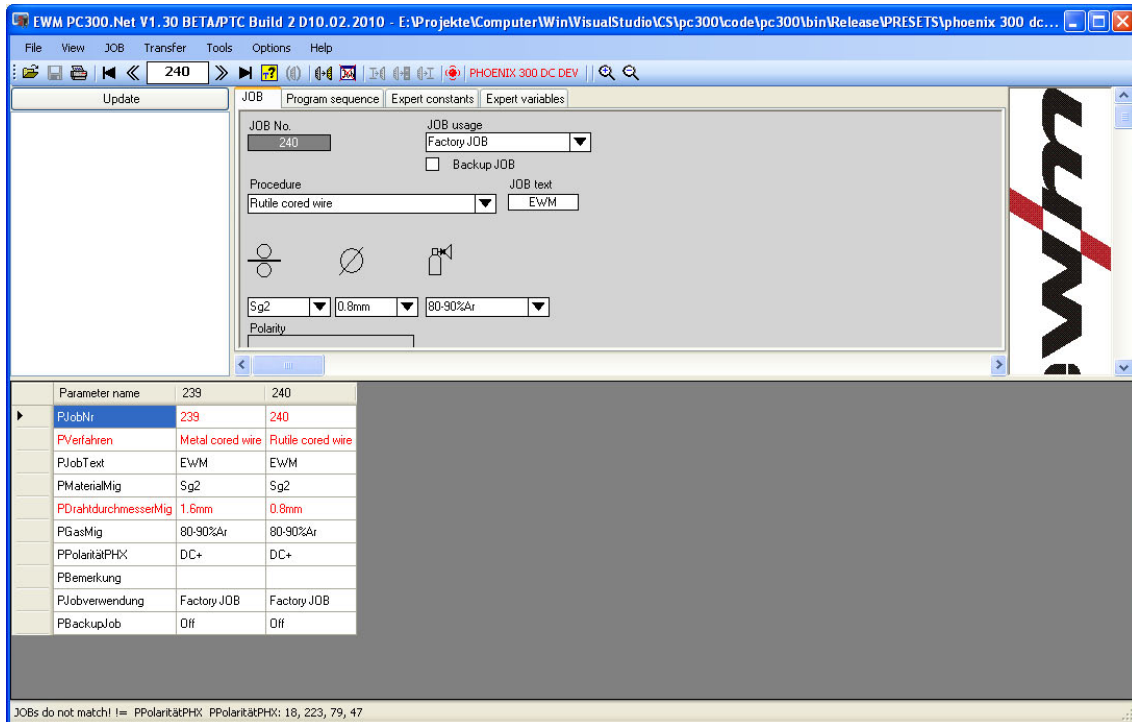


Figure 6-16

**Different parameters are shown in red.**


Functions:

- The parameters displayed can be switched using the tabs between JOB, program sequence, expert constants and expert variables.
- The “Process” button in the toolbar can be used to switch between Automatic/Manual, Standard/Pulse and coldArc where appropriate.
- Rows selected in the parameter list will be displayed with a blue frame in the working area. Rows are selected using the button in the first column in the table.

## 6.8 Options

### 6.8.1 General

#### NOTE

 Some options only become active after closing and re-starting the software.

### 6.8.2 Settings

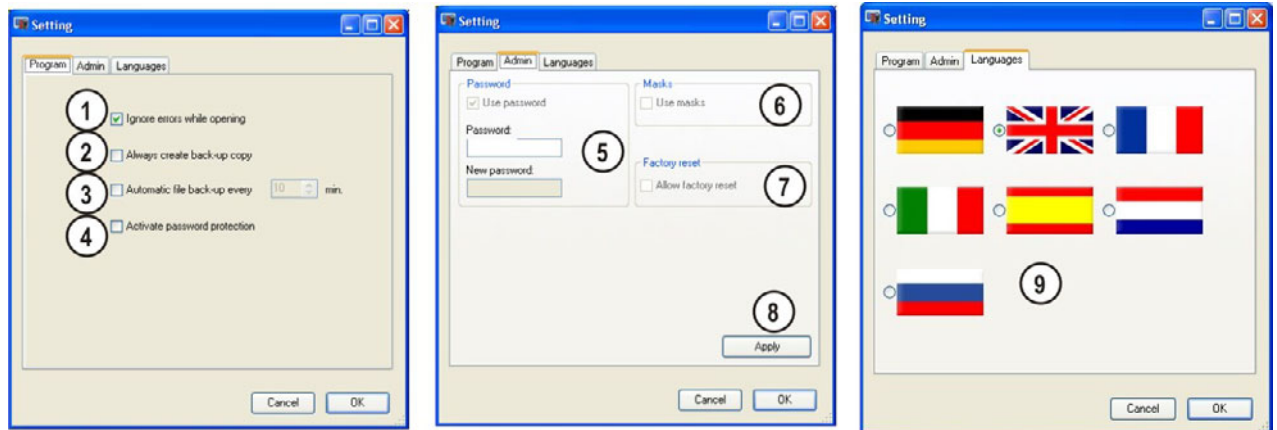


Figure 6-17

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>Ignore error on opening</b><br>When opening database files, no error messages are normally displayed.   |
| 2    |        | <b>Always create a back-up copy</b><br>Each save operation creates a back-up copy with the file extension *.bak.   |
| 3    |        | <b>Autosave file every "x" min.</b><br>Automatically save the database to the hard drive every "x" minutes.  |
| 4    |        | <b>Activate password protection</b><br>The expert constants and expert variables tabs are hidden and only accessible again after entering the expert password in the main menu under "Options/Expert password".  |
| 5    |        | <b>Use password</b><br>The settings on this page are only accessible with a password after activation. To do this, enter an administrator password in the "New password" field. After pressing the "Apply" button and restarting the program, changes can only be made by entering the administrator password in the "Password" field. |
| 6    |        | <b>Use masks</b><br>Input boxes are masked, changes no longer possible.  |
| 7    |        | <b>Permit factory reset</b><br>Shows or hides the option of a factory reset on the welding machine in the main menu.   |
| 8    |        | <b>"Apply" button</b><br>Changes to this tab need to be confirmed once again.  |
| 9    |        | <b>Language selection</b><br>The language for the program interface can be changed by selecting the option button in front of the flags displayed.   |



### 6.8.3 Synchronising the database

#### 6.8.3.1 Opening the second database

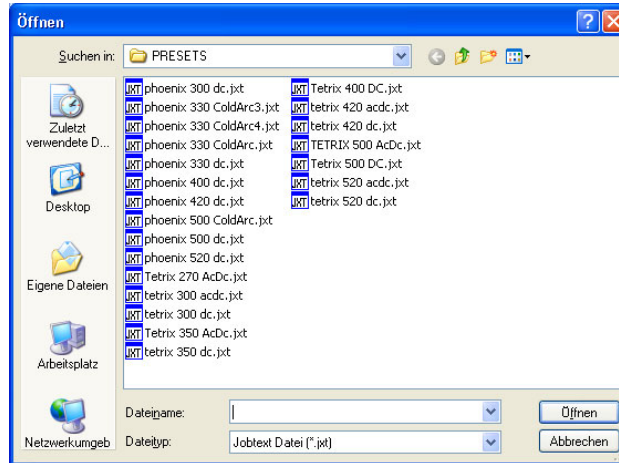


Figure 6-18

- Select main menu, options, synchronise database.
- A second database file is opened, operated by dialogues, for synchronisation with the database currently open in the software.

### NOTE



The database already open and the database selected for synchronisation must be compatible. This means that various welding processes such as MIG/MAG, TIG, etc. cannot be synchronised.

#### 6.8.3.2 Selecting the data records

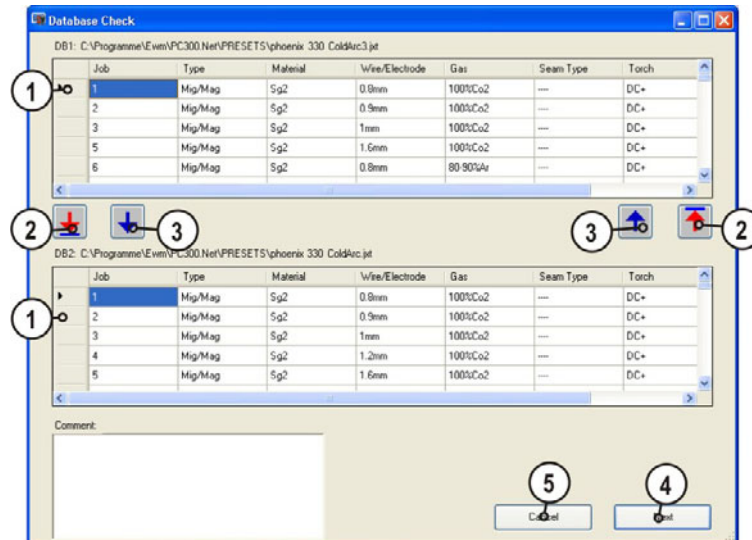


Figure 6-19

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | Button for selecting a data record  |
| 2    |        | Button for moving a data record   |
| 3    |        | Buttons for copying a data record   |
| 4    |        | Next button<br>Goes to the next dialogue window where the JOB numbers of the copied/moved data records are set. |
| 5    |        | Cancel button<br>Cancels the process at this point and returns to the previous window/dialogue field.           |



### 6.8.3.3 Assigning the new position

As soon as the button for selecting a data record is pressed, a dialogue field will open to assign the new position in the second database.

The direction is displayed in the "Move" column.

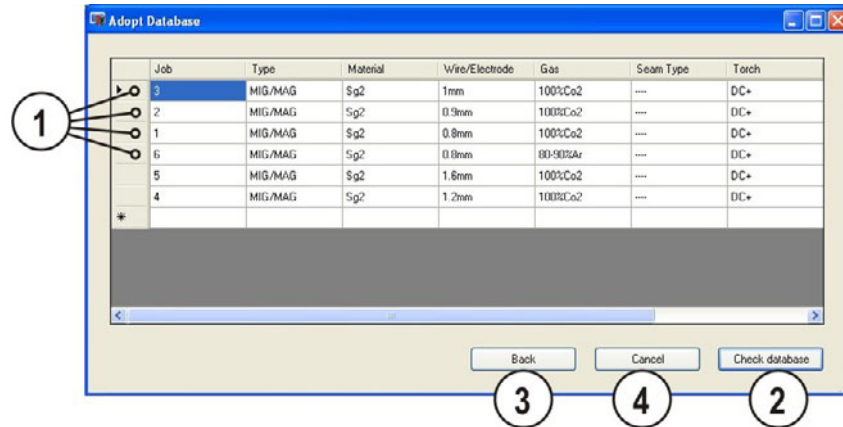


Figure 6-20

| Item | Symbol | Description   |
|------|--------|---|
| 1    |        | <b>Button for selecting a data record</b>   |
| 2    |        | <b>Synchronise DB button</b><br>The data records previously assigned using the button for selecting a data record will be synchronised and the window closed. |
| 3    |        | <b>Back button</b><br>Closes the window and returns to the previous window.   |
| 4    |        | <b>Cancel button</b><br>Cancels the process at this point and returns to the previous window/dialogue field.  |

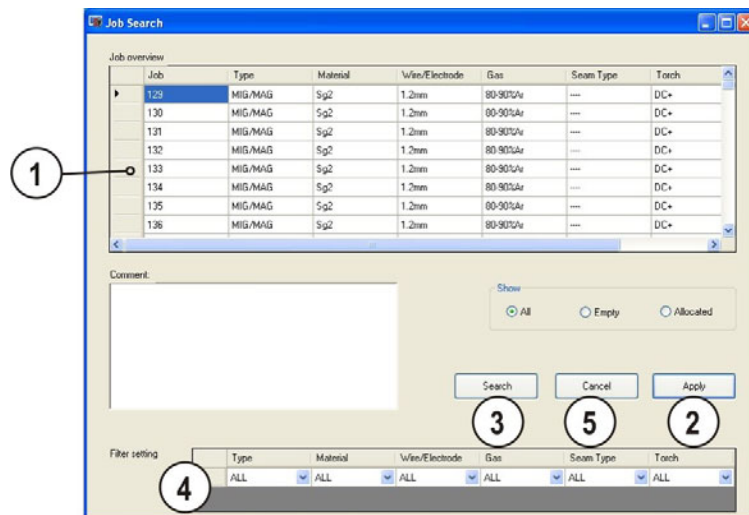


Figure 6-21

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>Button for selecting a data record</b>  |
| 2    |        | <b>"Apply" button</b><br>The position selected is transferred and the dialogue field closed.                 |
| 3    |        | <b>Search button</b><br>The list is re-built according to the criteria selected under "Filter settings".     |
| 4    |        | <b>Filter settings</b>   |
| 5    |        | <b>Cancel button</b><br>Cancels the process at this point and returns to the previous window/dialogue field. |

6.8.4 Measuring device

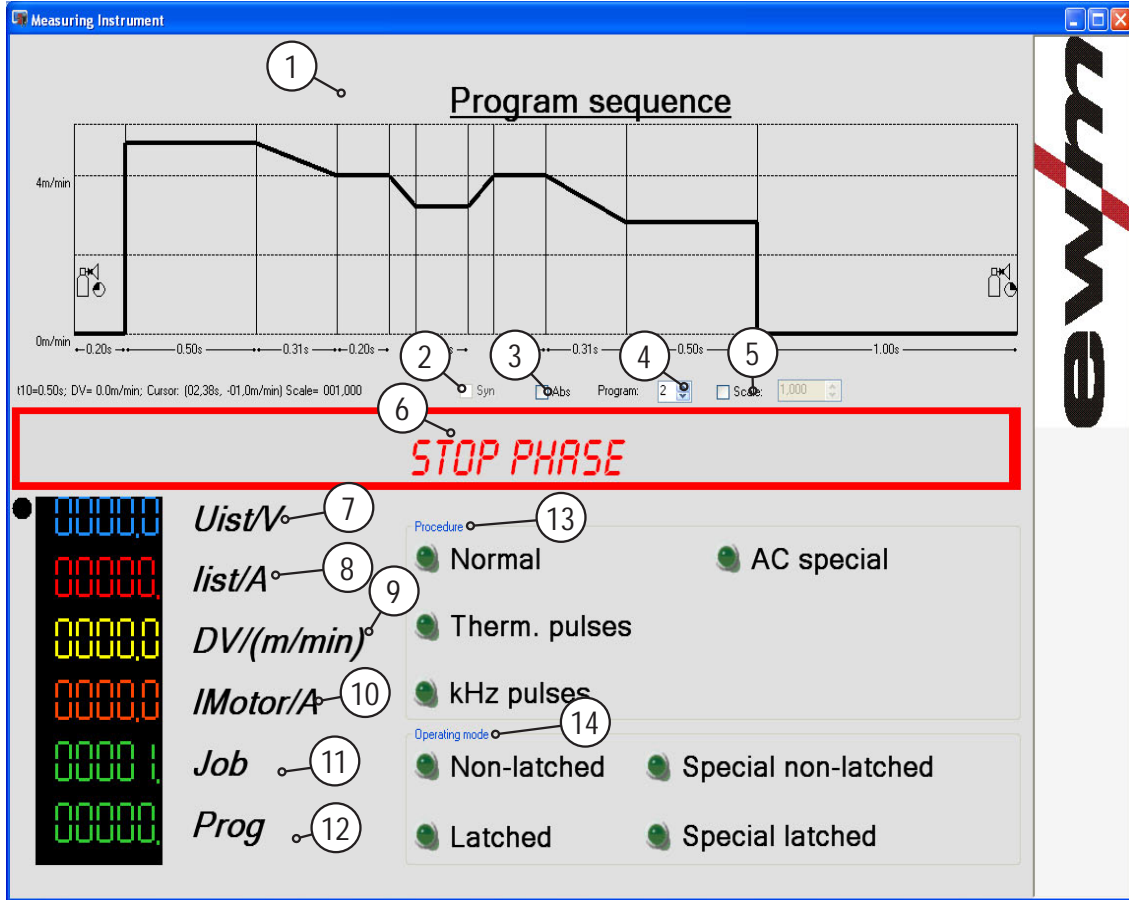


Figure 6-22

The measuring device is used for the real-time recording of welding parameters on the connected welding machines.

The parameters shown here can be configured in the main menu under Options, Parameter Selection.

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>Program sequence</b><br>The program sequence is displayed logarithmically accurately regarding the time and true to scale regarding the amplitude in amperes (Tetrix/FocusTig) and m/min (Phoenix/alpha Q). When you change parameters in the program sequence using the PC300.NET software the graphic will be remodelled accordingly. |
| 2    |        | <b>Syn</b><br>Synergy operation on or off.   |
| 3    |        | <b>Abs</b><br>Use of the absolute current values (Tetrix/FocusTig) and the absolute wire values (Phoenix/alpha Q).   |
| 4    |        | <b>Program</b><br>Selecting the program number to be used for graphic creation.  |
| 5    |        | <b>Scale</b><br>Scaling the time interval.   |
| 6    |        | <b>Red text</b><br>Denotes the current program sequence phase.<br>Stop, gas pre-flow, ignition, slope, main, end, post-flow phase.   |
| 7    |        | <b>Uact/V</b><br>Measured welding voltage in volts.  |
| 8    |        | <b>Iact/A</b><br>Measured welding current in amperes.  |

---

| Item | Symbol | Description   |
|------|--------|---|
| 9    |        | <b>WF (m/min)</b><br>Measured actual value for wire feed.   |
| 10   |        | <b>Imotor/A</b><br>Measured motor current actual value on the wire feed unit.                     |
| 11   |        | <b>JOB</b><br>Welding JOB currently selected on the welding machine.                              |
| 12   |        | <b>Prog</b><br>Currently selected program (program number) for program A.                         |
| 13   |        | <b>Process</b><br>Display of the current welding process.   |
| 14   |        | <b>Operating mode</b><br>The current welding operating mode is displayed by the next four diodes. |

## 7 Appendix A

### 7.1 EWMBACK.Net

#### 7.1.1 Window concept

EWMBACK.Net is an add-on program for the fast and simple back-up and re-import of JOBs from PHOENIX/TETRIX welding machines.

It is started via the start menu under “Programs”, “PC300.Net”, “ewmback.Net” or alternatively via a desktop shortcut created during the installation process.

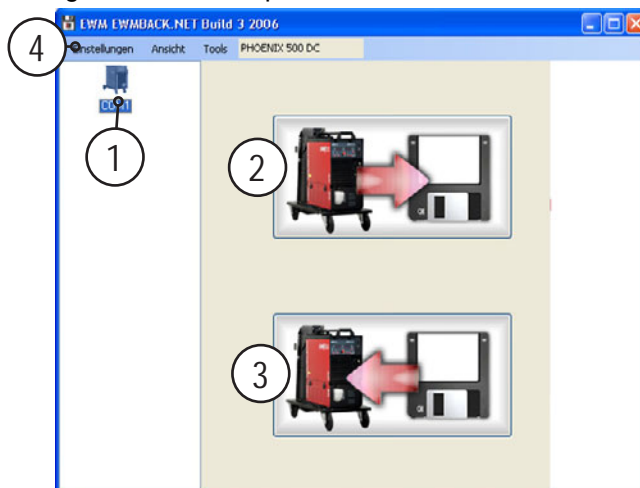


Figure 7-1

| Item | Symbol | Description  |
|------|--------|--|
| 1    |        | <b>Sidebar</b><br>Used to display and select the machines connected to the interfaces. |
|      |        | Greyed out symbol: No machine connected  |
|      |        | Colour symbol: Machine connected   |
| 2    |        | <b>Button for backing-up JOBs from the welding machine</b>                             |
| 3    |        | <b>Button for re-importing JOBs to the welding machine</b>                             |
| 4    |        | <b>Main menu bar</b>   |
|      |        | Settings such as language and password protection can be made here.                    |

#### 7.1.2 Starting the back-up

You will be prompted to enter a password for the archive.

The default password following installation is “ewmback”.

- Using dialogue fields you will be prompted to select or enter a filename.
- Additional information, such as the location, department, etc. can be provided during the dialogue process.
- Similar to transferring to the PC 300.NET software, the volume of the JOBs backed-up can be set. It is possible to back-up all fixed, free and current user-defined subsets of the JOBs.

#### 7.1.3 Starting the re-import

- Using dialogue fields you will be prompted to select the name of the archive file.
- Additional information, such as the location, department, etc. will be displayed after the file is opened.
- After confirming a security prompt, the data will be re-imported to the welding machine.
- A progress dialogue field will keep you informed of the process status.

## 8 Appendix B

### 8.1 Script control

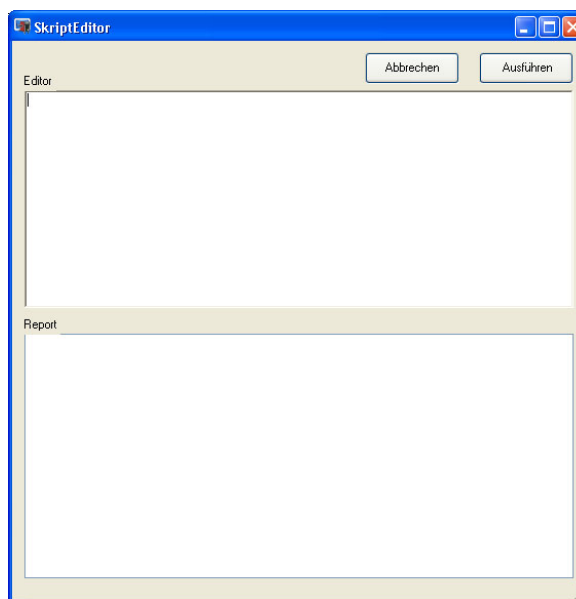


Figure 8-1

A simple text editor such as Windows "Notepad" can be used to create the script data.

A script can be tested in the integrated Script Editor, which you will find in the main menu under "Tools". Use copy and paste to insert the script into the top "Editor" window and click the "Run" button.

Error/completion messages will be displayed in the lower "Report" window.

| Command   | Syntax   | Meaning   | Note  |
|-----------|--|---|---|
| UseReport | UseReport (filename.log)   | A log file is created under the filename specified.   | The creation of a log file is used for troubleshooting purposes and is not absolutely necessary.  |
| LoadJXT   | LoadJXT (filename.jxt)   | The database specified under the filename will be opened  | A database must be opened before all other actions in any script.   |
| DelJob    | DelJob ([ j <sub>1</sub> , j <sub>3</sub> , j <sub>5</sub> , j <sub>6</sub> , j <sub>N</sub> ])  | The JOBS separated by commas are deleted  | When specifying comma lists, these should be enclosed in square brackets.   |
|           | DelJob ([j <sub>1</sub> - j <sub>N</sub> ])  | JOB 1 to JOB N will be deleted  |   |
| CopyJob   | CopyJob (source, [ j <sub>1</sub> , j <sub>2</sub> , j <sub>3</sub> , j <sub>N</sub> ])  | JOB with the "source" number is copied to the comma-delimited list of JOBS.   | When specifying comma lists, these should be enclosed in square brackets. Data saved in the target locations is overwritten by the source JOBS!                         |
|           | CopyJob (Quelle, [j <sub>1</sub> - j <sub>N</sub> ])   | JOB with the "source" number is copied to JOBS j <sub>1</sub> to j <sub>N</sub> .   |   |
| SetByName | SetByName([j <sub>1</sub> , j <sub>2</sub> , j <sub>N</sub> ], [p <sub>1</sub> , p <sub>2</sub> , p <sub>N</sub> ], [value <sub>1</sub> , value <sub>2</sub> , value <sub>N</sub> ]) | Parameters p <sub>1</sub> , p <sub>2</sub> , p <sub>N</sub> in the JOBS j <sub>1</sub> , j <sub>2</sub> , j <sub>N</sub> are set to the values value <sub>1</sub> , value <sub>2</sub> , value <sub>3</sub> . | These are named parameters. The names are the same as those in the PC300.NET interface. Values are transferred as a string, the decimal separator is the full stop (.). |
| SaveJXT   | SaveJXT (filename.jxt)   | The database specified under the filename will be saved.  | Any existing database under this name will be overwritten.  |

|              |  |  |   |
|--------------|--|--|---|
| For ... Next | For(A,Start,End,Step)<br>DelJob(\$A)<br>Next() | In a loop, the JOBS from Start to End are deleted in the step specified under Step | Example:<br>For(A,1,10,2)<br>DelJob(\$A)<br>Next()<br>Deletes JOBS 2, 4, 6, 8, 10 |
|--------------|--|--|---|

### NOTE



Commands must not occupy more than one row; the length of the row is unlimited in this case.

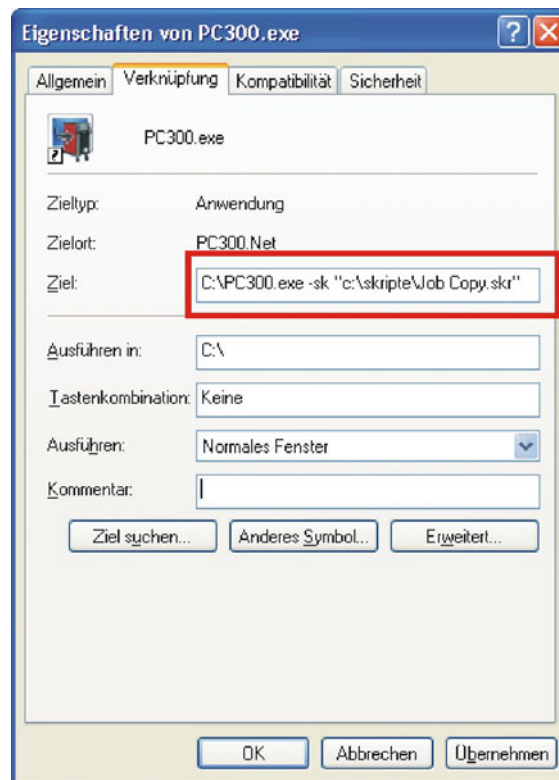


Figure 8-2

Scripts can be transferred to the PC300.NET when starting the program as parameter “-sk”.  
The software starts, runs the script and closes it again.

The parameters can be entered easily by creating links to PC300.exe and specifying the relevant script name in the link properties under “Destination”.

The links should have a meaningful name and be created at an easily accessible location, such as on the desktop.

### NOTE



**There must be a space between the filename PC300.exe, the parameter “-sk” and the script name. If the script name or the path to the script contains a space, this must be enclosed in speech marks.**





Example:

```
C:\Program\EWM\PC300\PC300.exe -sk "C:\PC300 Scripts\Back up  
JOBS.skr"
```

## 9 Appendix C

### 9.1 Additional keyboard functions

In addition the standard Windows keyboard functions such as <ctrl>&<c> to copy text to the clipboard, and <ctrl>&<v> to paste it back in again, there are other useful functions that make it easier to edit the parameters.

| Keys/name   | Function  | Note   |
|---|---|--|
| <br>Control + Z key    | To undo the last change made                                    | Each time the key combination is used, the program will undo one change, up to a maximum of the status of the last save. |
| <br>Tab key            | Moves forward one input box                                     | The tab key makes it easier to navigate between the input boxes  |
| <br>Shift and tab keys | Moves back one input box  |  |
| <br>Navigation keys    | The parameter value is increased or reduced within an input box |  |



## 10 Appendix D

### 10.1 Overview of EWM branches

[www.ewm-group.com](http://www.ewm-group.com)

[www.ewm-tv.de](http://www.ewm-tv.de)

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