

ATS400

ETL DataView 3

User Manual



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1 Introduction

This manual describes the functions of **ETL DataView 3**.

This manual is aimed at various roles, which use **ETL DataView 3**. This manual differentiates between the roles of [administration](#), [test plan editing](#), [inspector](#) and [report creation](#). Furthermore, the manual contains a [reference](#) about the tests, for the files used and created by **ETL DataView 3**.



Note

This manual has the status in progress. All details are correct to the best of knowledge, but may be incomplete. The information in this manual supplements and replaces the existing documentation.

All text in **Courier New blue** is either text as shown in the user interface or keywords in files.



Note

This manual is aimed to be used with an **ATS400**. When using devices of **Series 36** not all chapters are applicable. There will be no note on this fact.

2 Administration

This part of the manual is aimed at system administrators.

It describes information that is necessary to set up and operate **ETL DataView 3**.

It describes activities that a system administrator must carry out if he wants to install **ETL DataView 3** on his own PC.

All instructions and screenshots refer to the operating system **Windows 7 SP1 32 bit** English.

Section you will only need if you are installing **ETL DataView 3** on your own computer:

[Installing ETL DataView 3](#)

[Installing the PDF-Creator](#)

[Setting up the PDF Creator](#)

You must also consider all other sections when changing the system environment, e.g. want to integrate the **ATS400** in a network environment.

2.1 System setup

In this chapter the work is described which must be done by a **Windows** system administrator.

2.1.1 Windows users

On the variants X4 and X5 of the **ATS400** no users can be created on system level since Windows CE does not have users.

On the variants X6 and X8 of the **ATS400** one user with the name **ATS400** is created as administrator. This user has no password and is logged on automatically.

You can make the **ATS400** part of a domain and allow to log in with domain accounts. You need additional users only when making the **ATS400** part of a network and the logged in user will use windows explorer or other applications using the network. **ETL DataView 3** will not make use of Windows users and does not support single sign on.



Important

When creating reports and you are using multiple printers, e. g. for local printing and creating a PDF-file, the logged in Windows user must have local administrative rights.

For each user logged into Windows the configuration of the PDF-Creator must be applied again, see [here](#)

In chapter [Create network drive](#) is described how to use a **ATS400** without adding to a domain to use test plans and store results in a network.

2.1.2 Installing ETL DataView 3

For the here describes installation of **ETL DataView 3** into the programs folder the following conditions must be met:

You must have local administration rights.

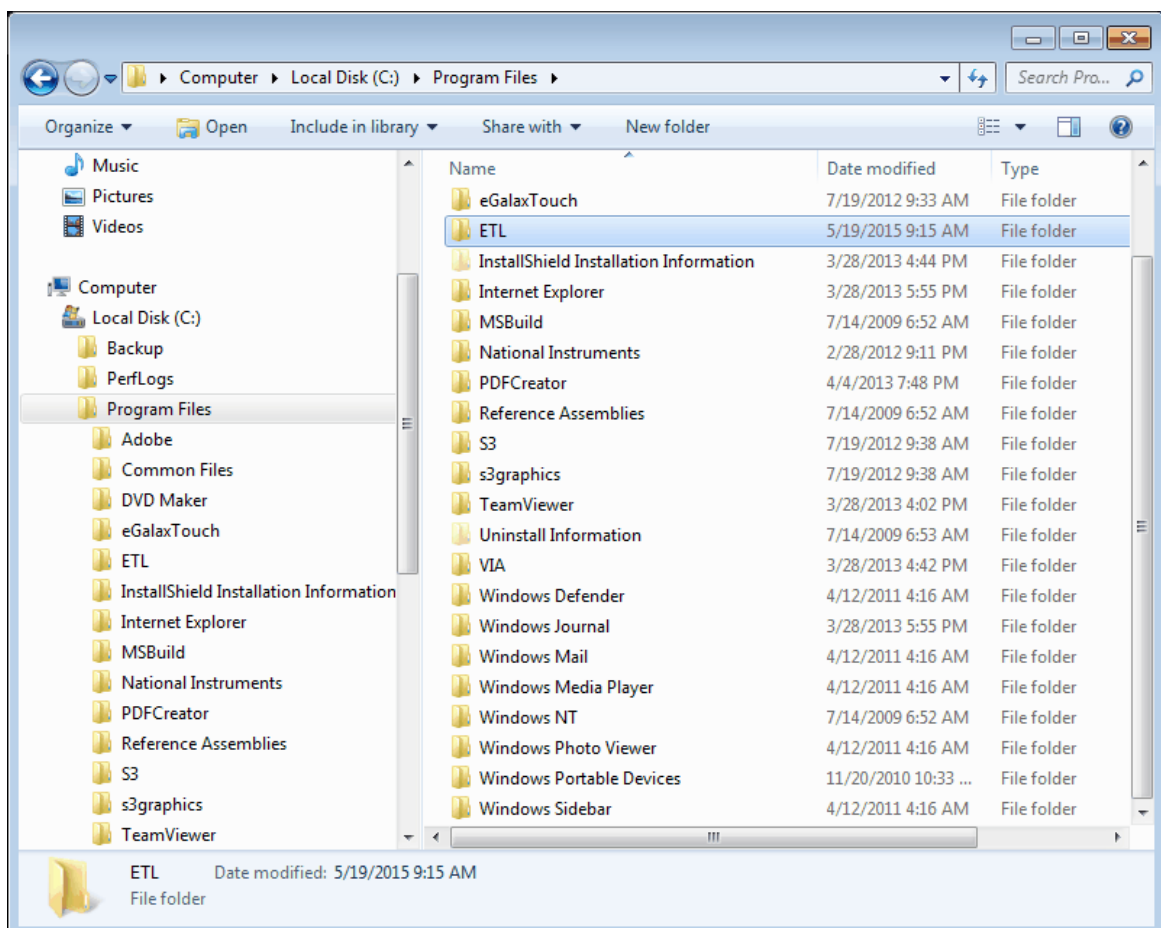
You must have **ETL DataView 3** on an data storage.

You must have acknowledgement of using **Windows Explorer**.

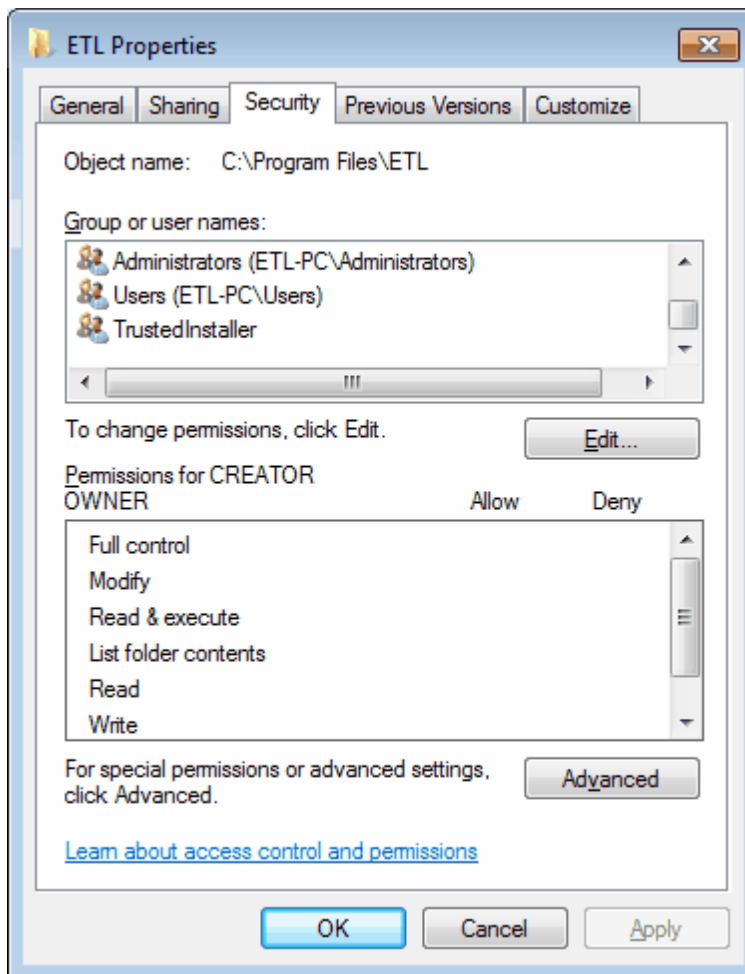
On a **Windows 7 64Bit** system the programs folder is named **Program Files (X86)** instead of **Program Files**.

Dependend on the settings of the User Account Control additional dialogs may be opened. These are not displayed in the following instruction. Additionally some buttons may be overlayed by the administrator symbol.

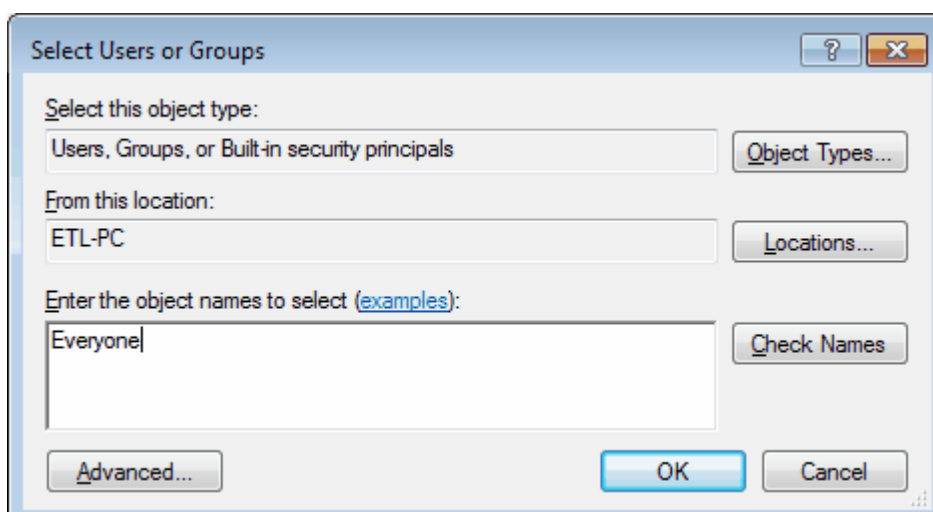
Create a new folder **ETL** in the programs folder of the PC.



Open using the context menu the dialog **Properties** and step to the property page **Security**. Click on the button **Edit...**

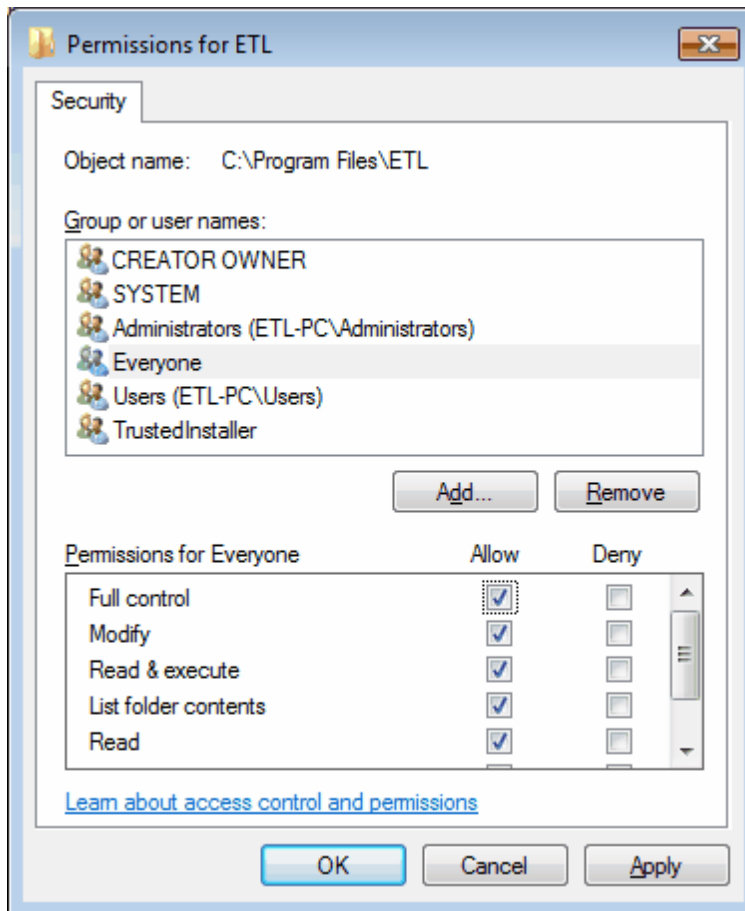


Click in the following dialog on the button **Add...**



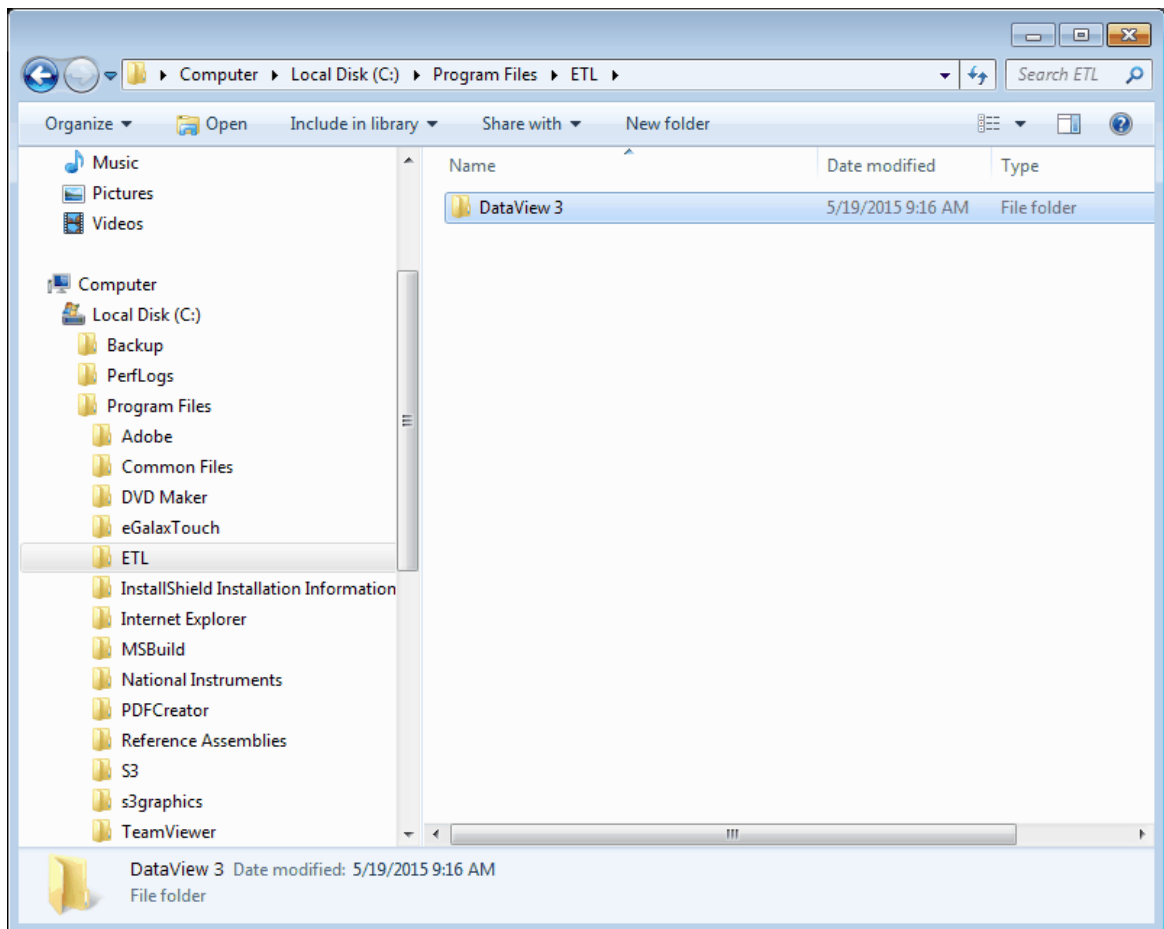
Enter **Everyone** and close the dialog with the button **OK**.

Activate for **Everyone** the checkbox **Full control** in column **Allow**.



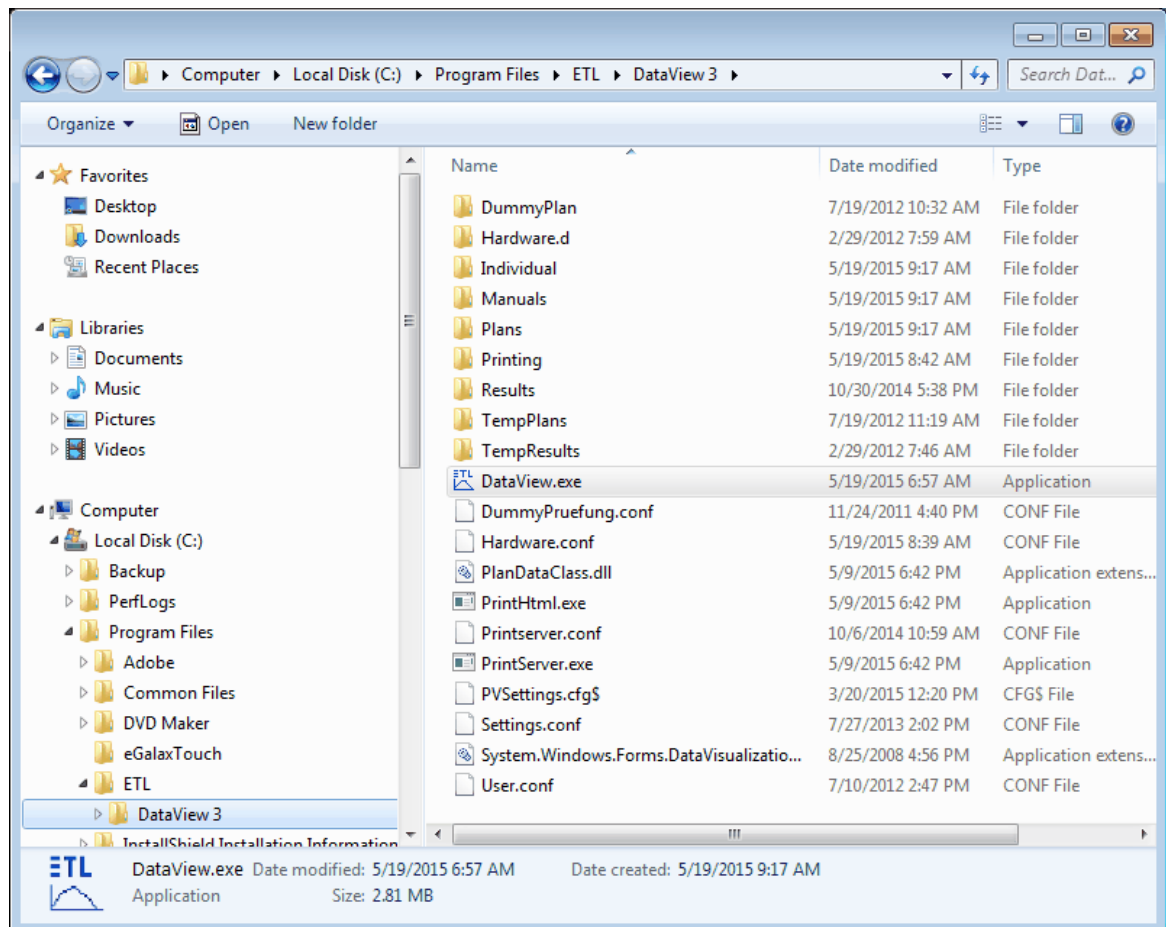
Close both dialogs with the button **OK**.

Navigate to the folder **ETL** and create a new folder **DataView 3**.

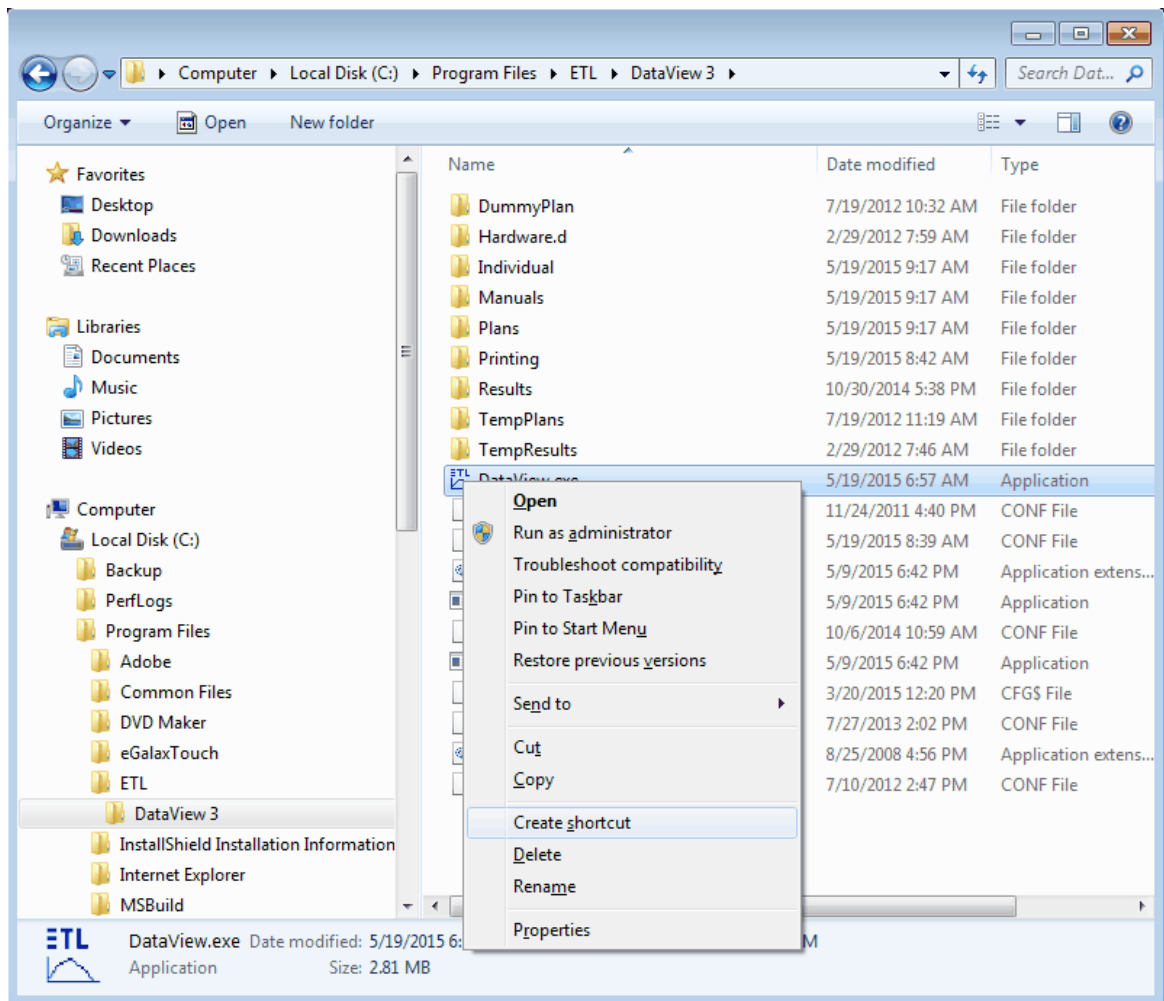


Copy the files for **ETL DataView 3** from your data storage to **DataView 3**.

This folder should now contain the files like in the following screenshot.



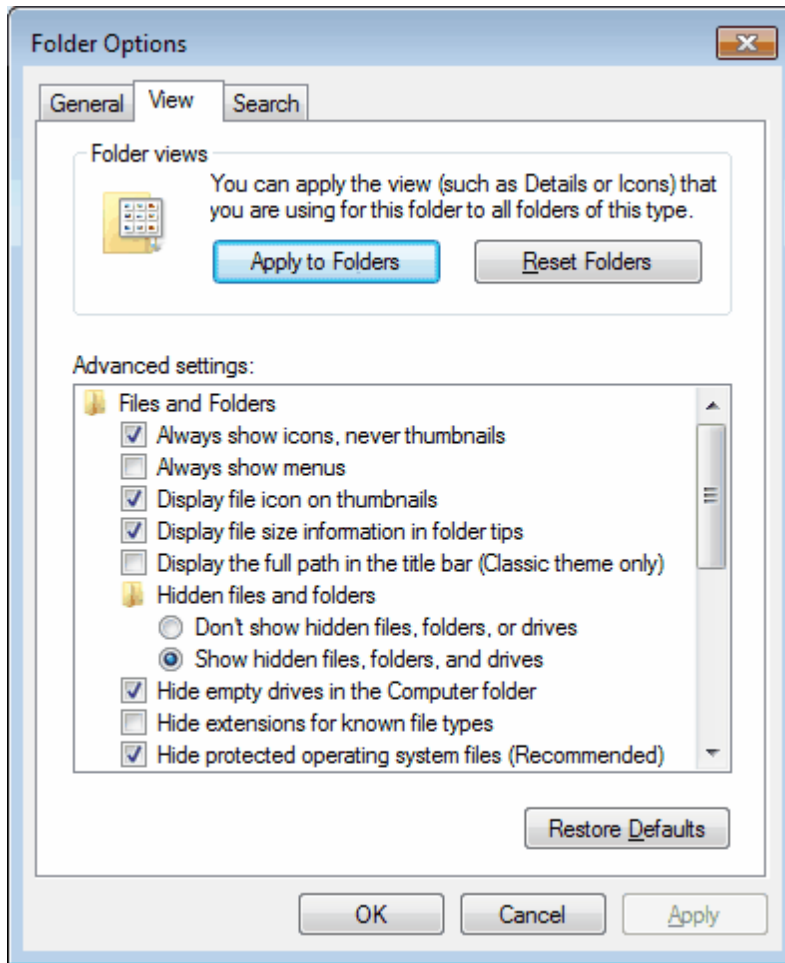
Create a shortcut for **ETL DataView 3**.



Rename the shortcut into **ETL DataView 3**.

Allow **Windows Explorer** to show hidden files and folders. Open under **Organize** the **Folder and Search options**. Step to property page **View**.

Activate the radio button [Show hidden files, folders and drives](#). Close the dialog with the button [OK](#).



To offer a start from the desktop copy the shortcut to the folder [C: -> Users -> Public -> Public Desktop](#).

To enable a start when a user logs in copy the shortcut to the folder [C: -> ProgramData -> Microsoft -> Windows -> Start Menu -> Programs -> Startup](#).



Important

Before using [ETL DataView 3](#) you must configure the [serial port](#).

2.1.3 Installing the PDF creator

ETL Prüftechnik uses the PDF creator in version 1.6.2 to create PDF documents.

The PDF creator is already installed on the **ATS400** variants X6 and X8. For the **ATS400** variants X4 and X5, it is not possible to install the PDF creator.

You only need to carry out the activities in this section if you are installing **ETL DataView 3** on your own PC and want to use the creation of PDF files as the report option.

Download the PDF creator from the site ftp://ETL-FTP:d0wn10ad@134.98.90.37/Tools/PDFCreator-1_6_2_setup.exe.


Copy the downloaded setup program to the computer to be used. To this end, we recommend using the **C:\Setups** folder. If the device is connected to a company network, please disconnect the network connection by removing the cable. This means that you will not need to reply to additional dialogues, and no further unnecessary components will be installed.

Start the setup by right clicking on the file and selecting **Run as an administrator**.

Then follow the standard setup. Part of the dialogues are not displayed if the computer is not connected to a network.

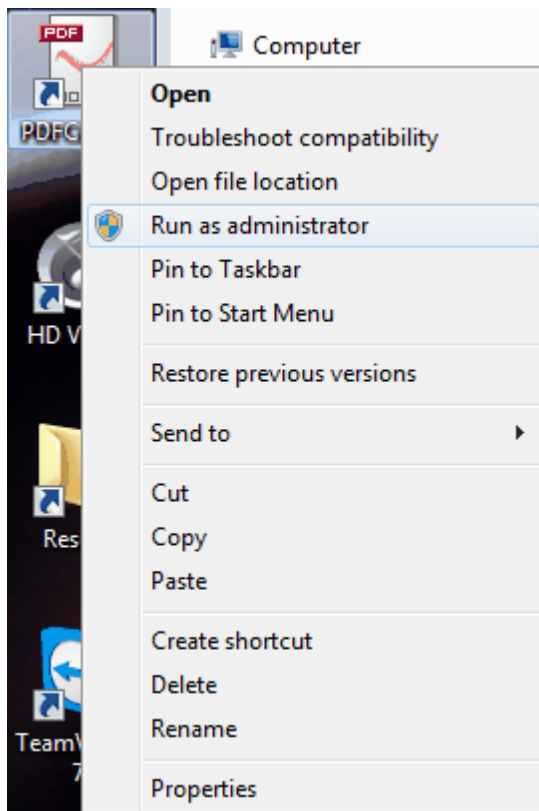
2.1.4 Setting up the PDF creator

To automatically save the PDF files, the PDF creator needs to be set up accordingly. A corresponding printer profile is created.

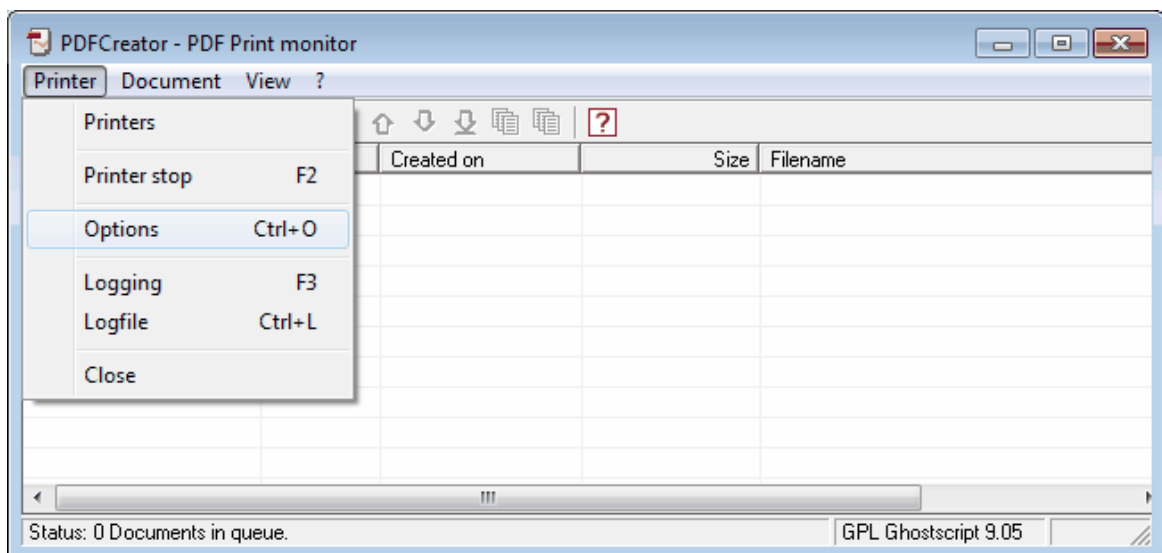
**Important**

For every user logged into **Windows**, this setup will partly have to be made separately.

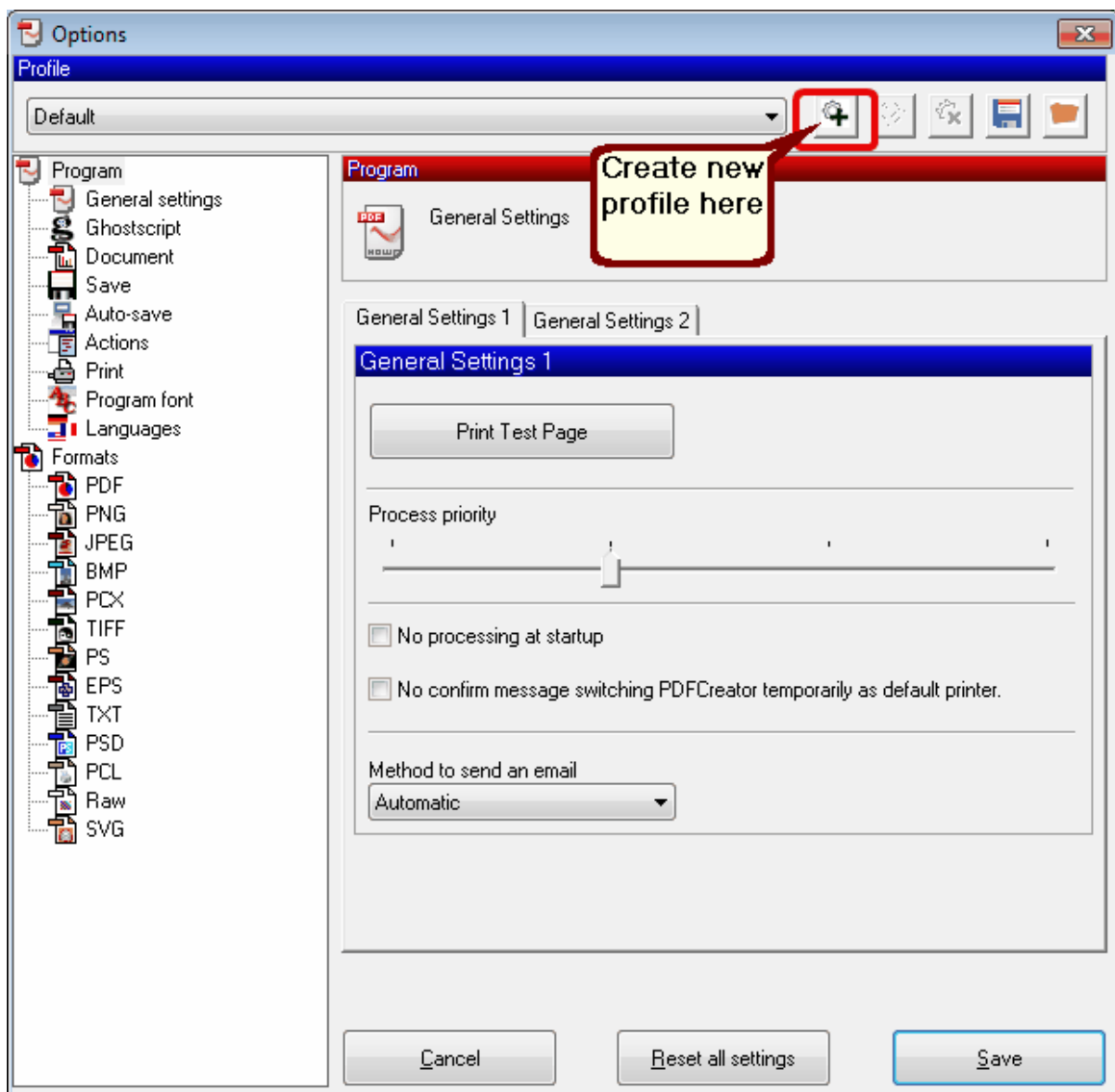
Start the setup by right clicking on the desktop on the PDF creator icon. Select **Run as administrator** from the menu.



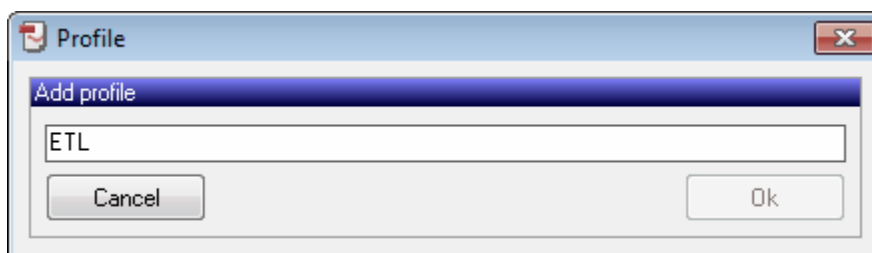
Select **Printer** -> **Options** from the menu.



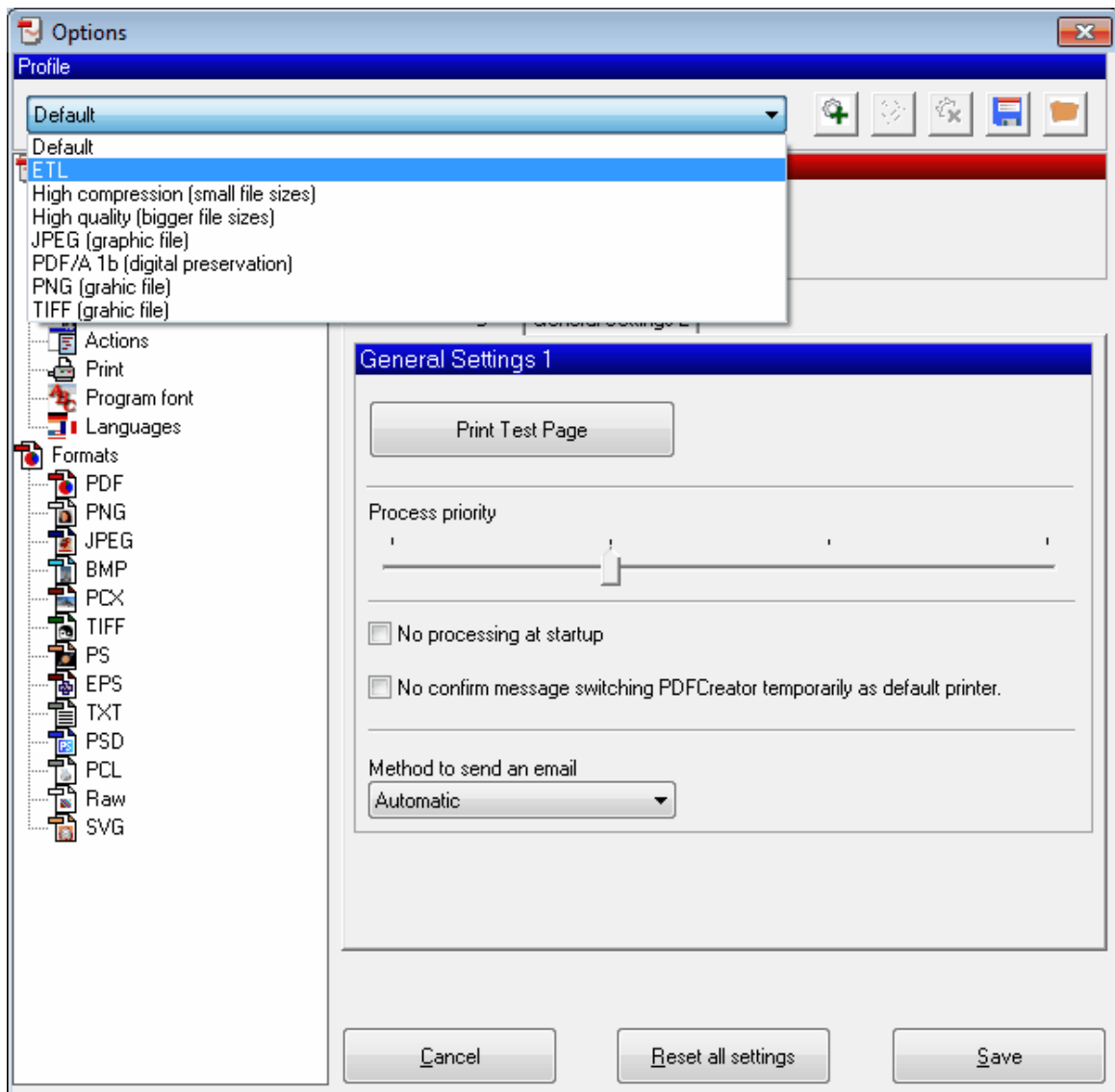
Create a new profile by clicking on the button with the **plus** symbol.



A window **Profile** opens, enter **ETL** and confirm with **Ok**.



In the list box, in addition to **Standard**, **ETL** is now also included as a profile. Select **ETL** to change the settings.



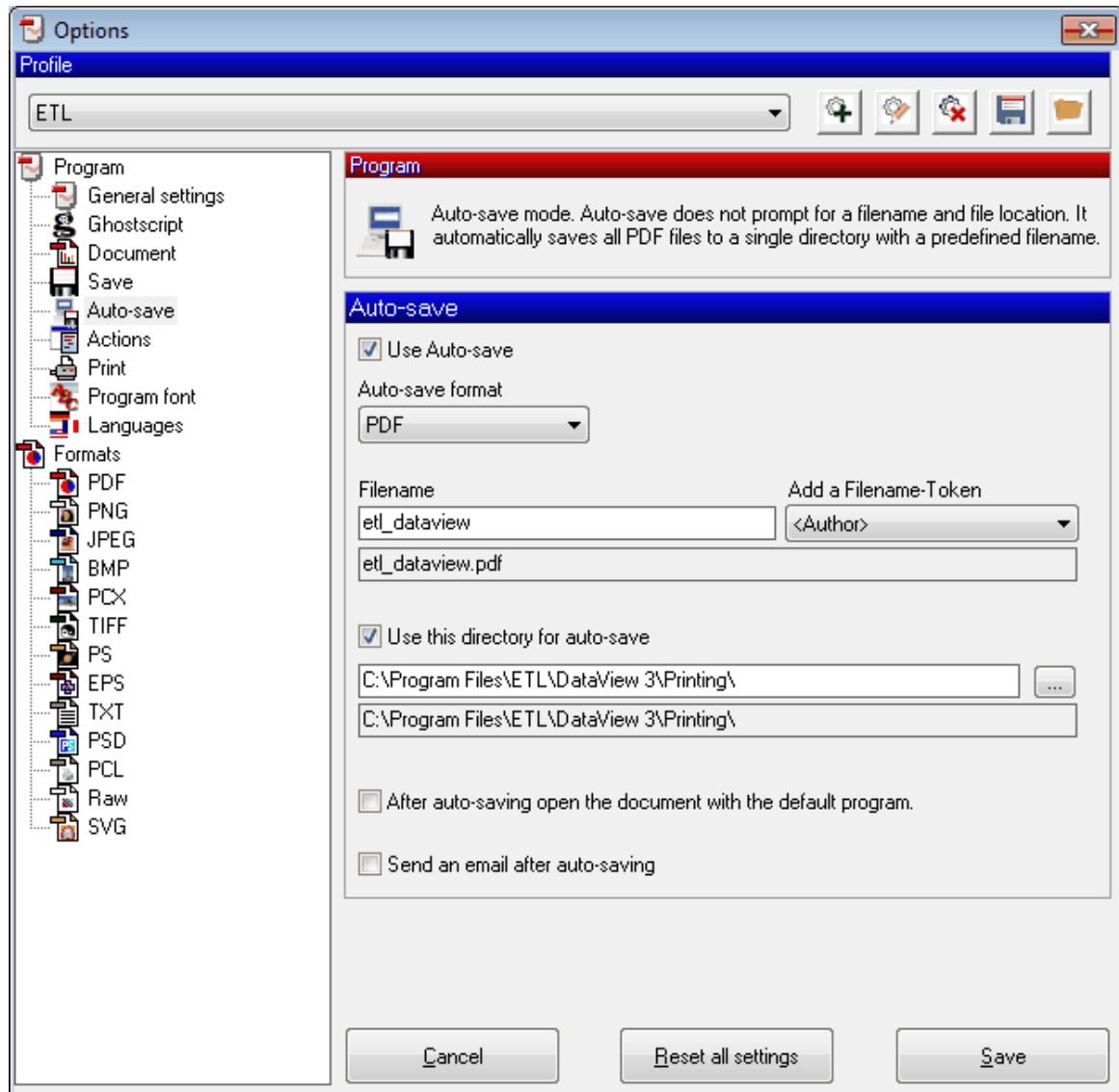
For the **ETL DataView 3** to automatically create PDF files, the **Auto-save** tab needs to be saved. The file name and the directory must be stated precisely in doing so.

Activate the **Use Auto-save** checkbox.

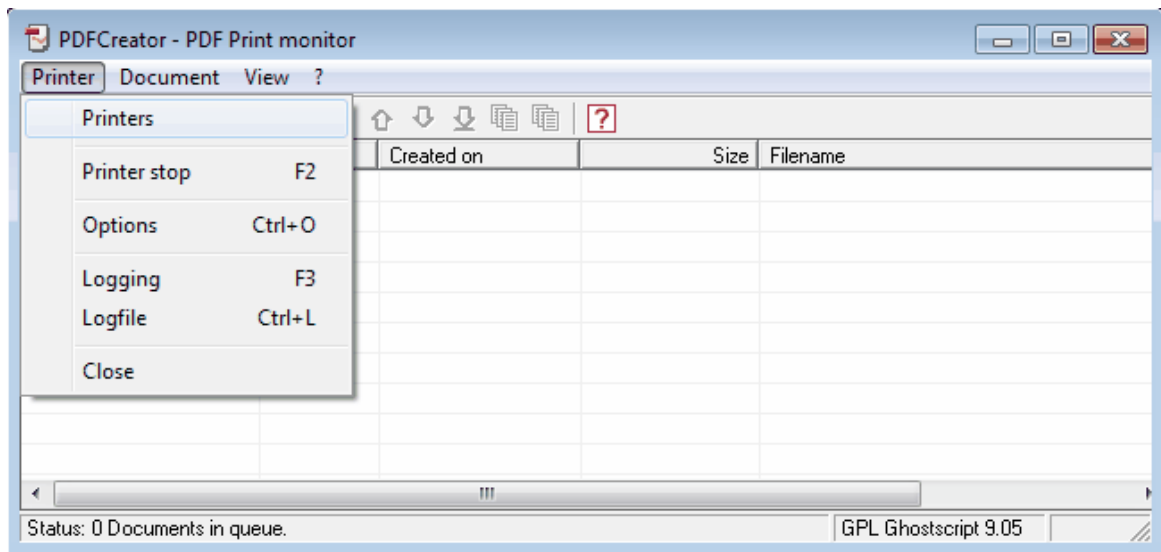
Enter the **etl_dataview** value in the **Filename** field.

Activate the **Use this directory for auto-save** checkbox. Select the **C:\Program Files\ETL\DataView 3\Printing** folder in the relevant field.

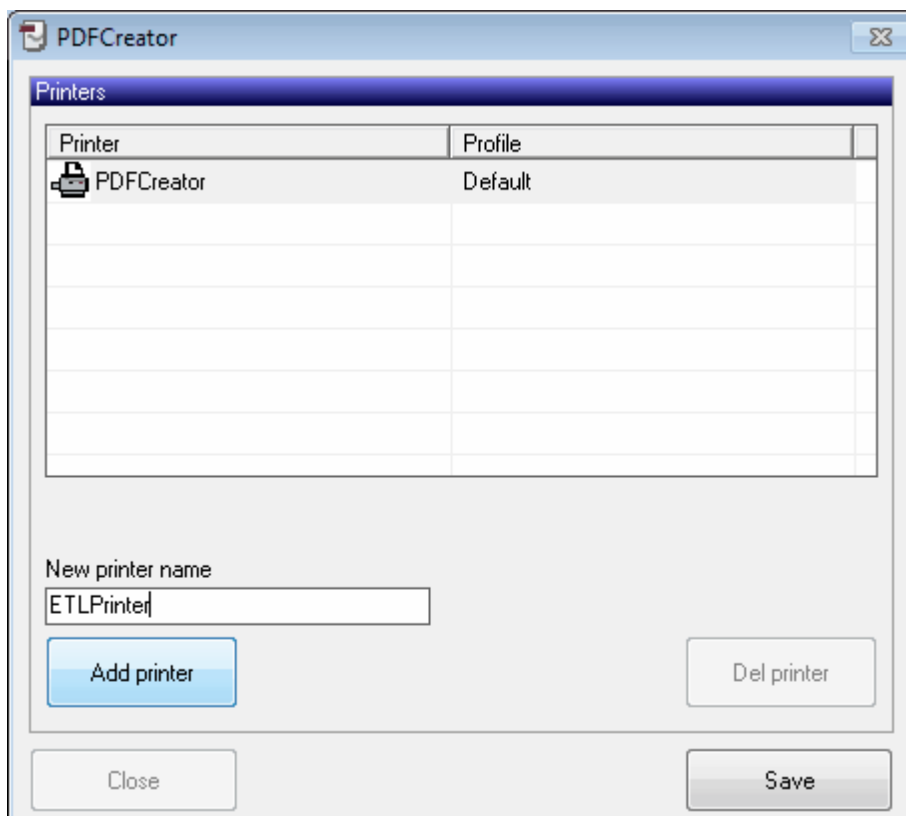
End the dialogue with the **Save** button. The window will close.



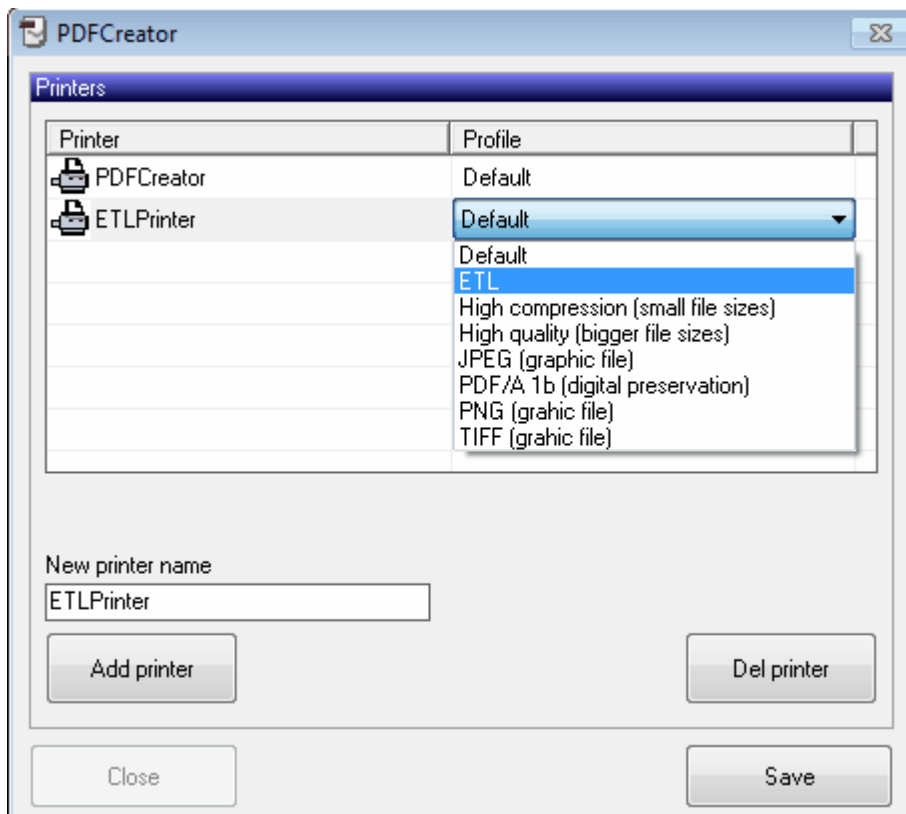
Select from the **Printer** -> **Printers** menu.



In the **New printer name** field, enter **ETLPrinter** and confirm the **Add printer** button. If the **Add printer** button cannot be selected, the setup program was not started with administrator rights.



Change the profile of the ETLPrinter to **ETL**.
End the dialogue with the **Save** button.



2.1.5 Adding to a network

ETL DataView 3 is able to store test plans and result files in a mapped network drive. You can use one share to store all files or two separate shares for test plans and result files. You can use different hosts for test plans and result files. Preparing you need the following details:

When using a fixed IP address:

- IP address of the DNS server, z. B. 10.2.1.50
- IP address of the locale system, z. B. 10.2.1.186
- Subnetmask of the network, z. B. 255.255.255.0

In all cases:

- Name of the host, e. g. etldats
- Name of the share for the test plans, e. g. etl_nobackup
- Name of the share for the result files, e. g. etl_nobackup
- Name of the domain, e. g. etl.local
- Name of the user with sufficient rights for the share
- Password of the user with sufficient rights for the share

To do the work you need a USB-keyboard and probably a mouse. Be aware that on the

variants X4 and X5 you can use only the left USB connector of the system. To connect more than one device you also need an USB-hub.

With the variants X4 and X5 connections have been established according to chapter [Administration](#) -> [System setup](#) -> [Adding to a network](#) -> [Variants X4 or X5](#) to the following server types.

	NetDCU8	NetDCU11	NetDCU14
Windows XP SP3	successfull		
Windows 7 32 bit	successfull	successfull	successfull
Windows 7 64 bit	successfull	successfull	successfull
Windows 2003 Server	successfull		
Windows 2008 Server	successfull	successfull	successfull



Important

With the variants X4 and X5 a connection can only established with a share. Only the format \\<hostname>\<share> is valid. A connectin to a subfolder in the format \\<hostname>\<share>\<folder> is not possible.

With the variants X4 or X5 the [integration](#) is done in [ETL DataView 3](#).

With the variants X6 or X8 the integration can be done in [ETL DataView 3](#). It is also possible to do the integration using a [network drive](#).

2.1.5.1 Variants X6 or X8

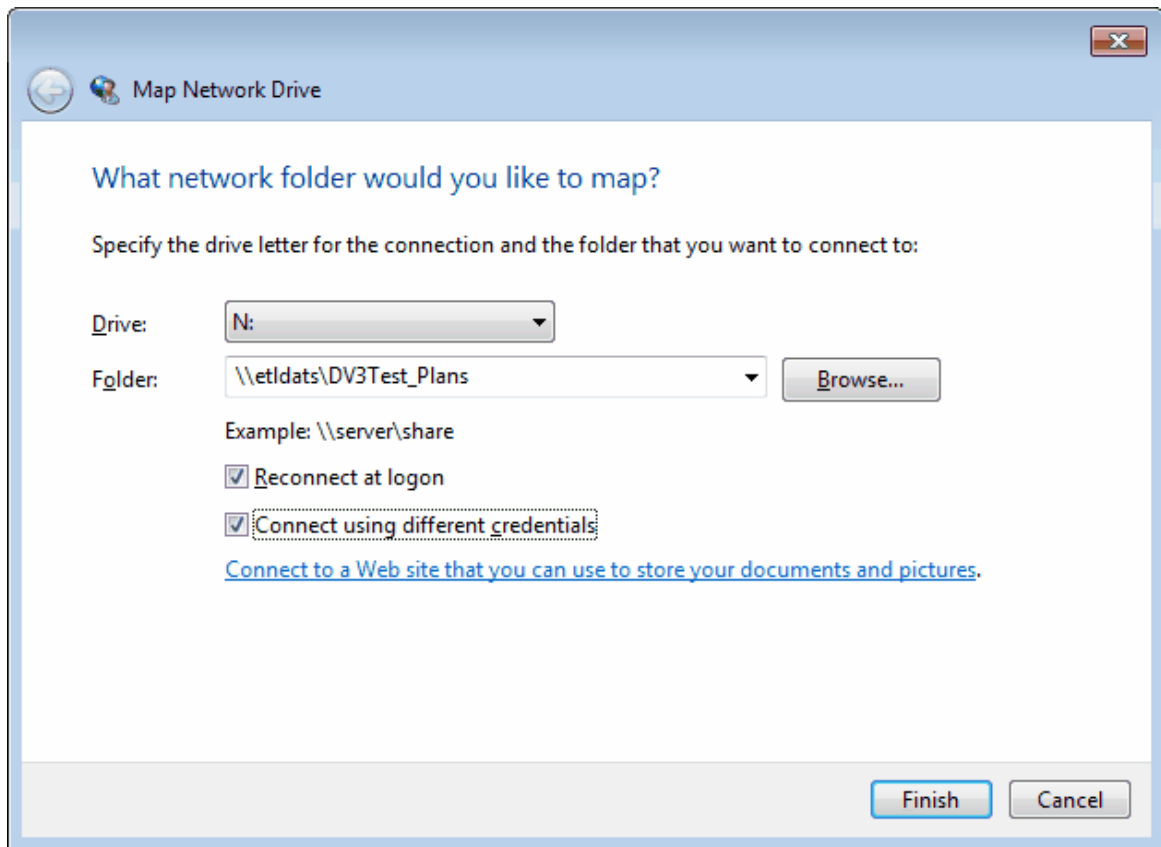
2.1.5.1.1 Create network drive

It is not necessary to integrate the [ATS400](#) into a domain to load test plans or store result files on to a network drive.

You must know the domain name, the share name, the user and the password.

If you want to use any drive letter you map it in [Windows Explorer](#).

Select in the folder view the entry **Computer** and choose for the menu bar **Map network drive...** Enter into the following dialog your connection an user data. Activate the checkboxes like displayed.

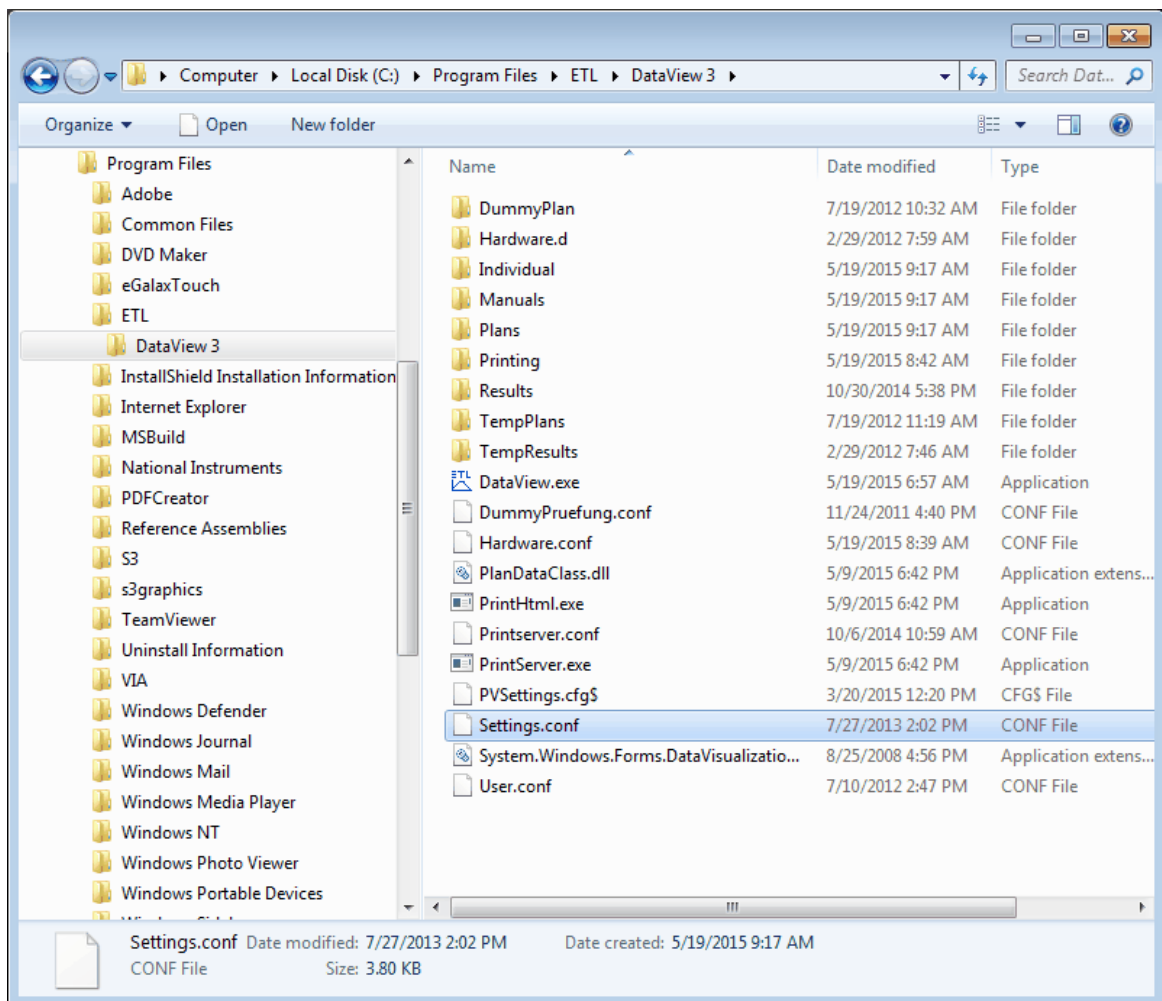


Alternatively you can map the drive using a batch file in the startup folder. This integration must be done by your system administrator.

You cannot setup this configuration in **ETL DataView 3**. You must apply this settings manually. In the following example it is assumed that you will store the test plans on drive N:\ and the result files on drive M:\.

Check in **ETL DataView 3** that under **Settings** -> **File storage** -> **Results** -> **Storage** the radio button **Local** is activated.

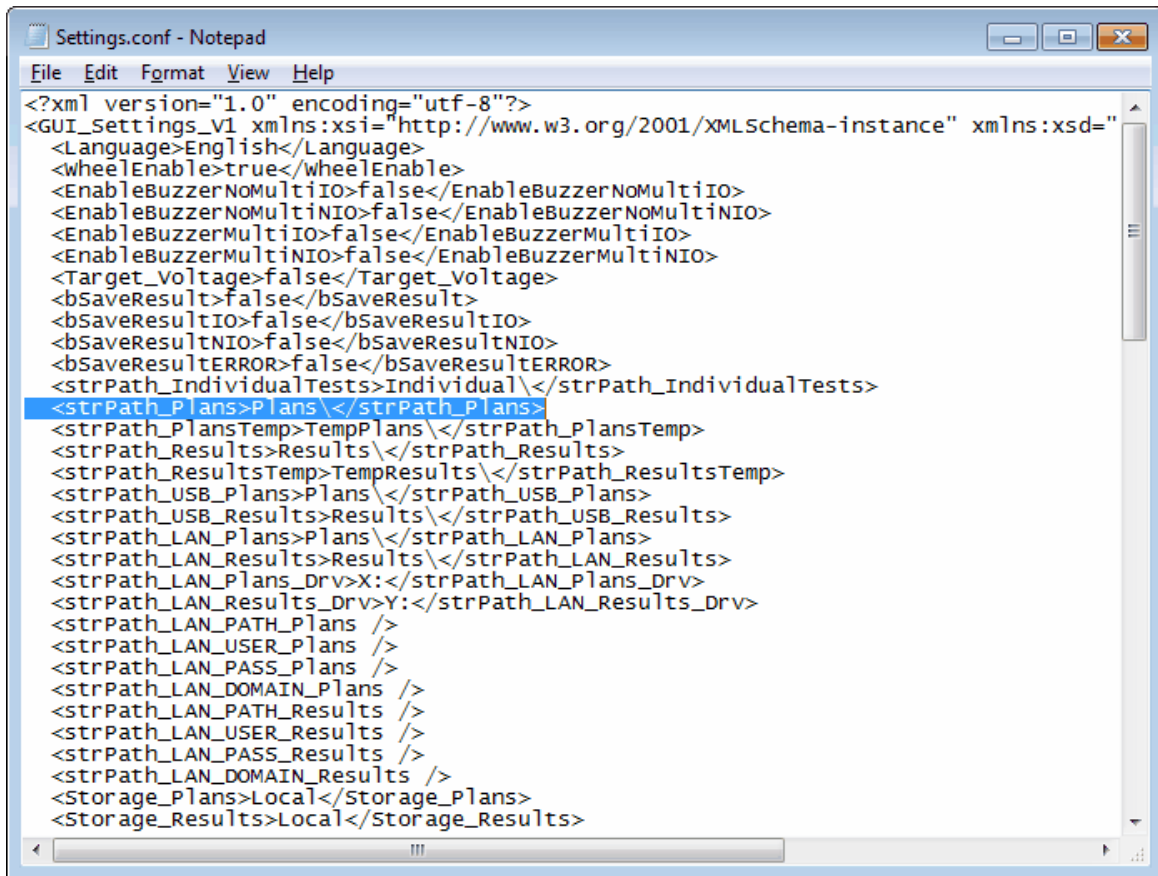
Navigate in **Windows Explorer** to the folder **C:\Program Files\ETL\DataView 3**. Open the file **Settings.conf** with the Windows Notepad.



Open the file with a double click and select in the opening dialog **Select a program from a list of installed programs** and close it with the button **OK**.

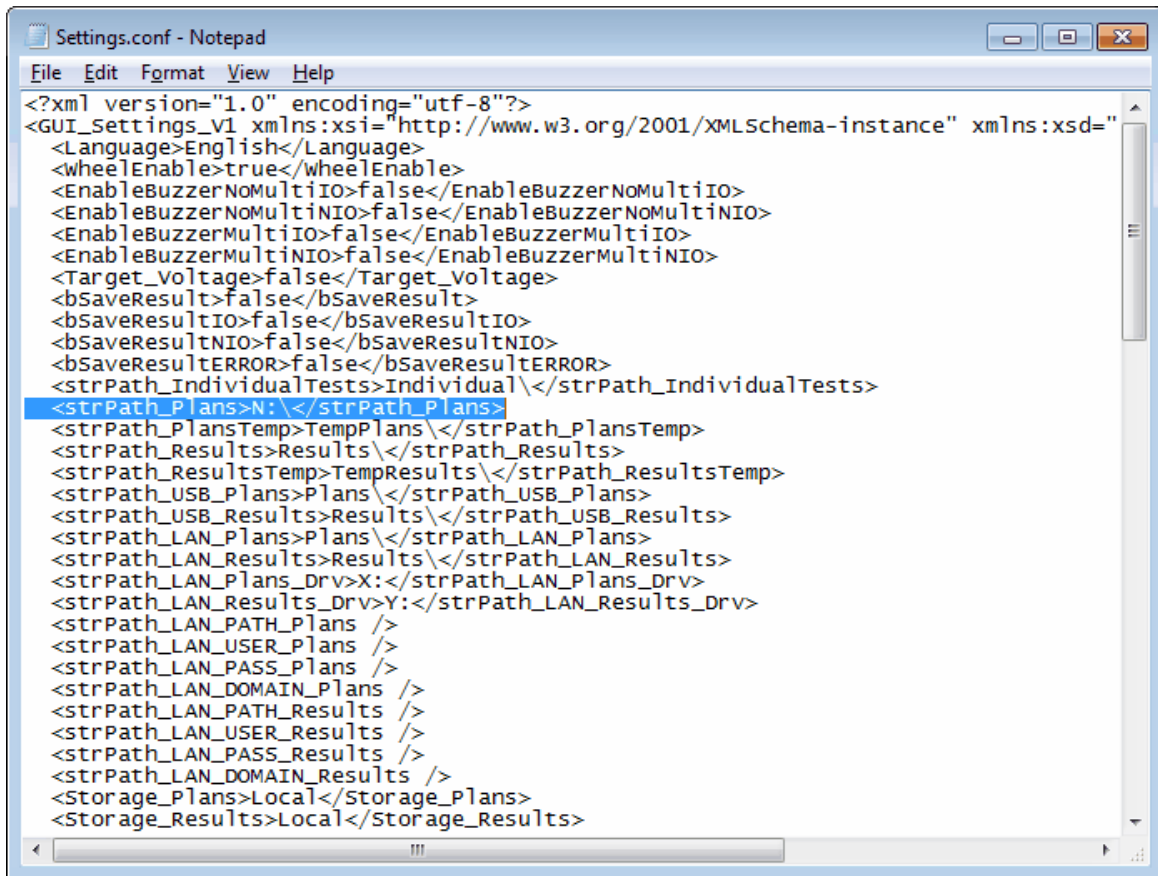
In the next dialog choose **Notepad** and close the dialog with the button **OK**.

Windows Notepad will open. Find the line with the entry `strPath_Plans`.



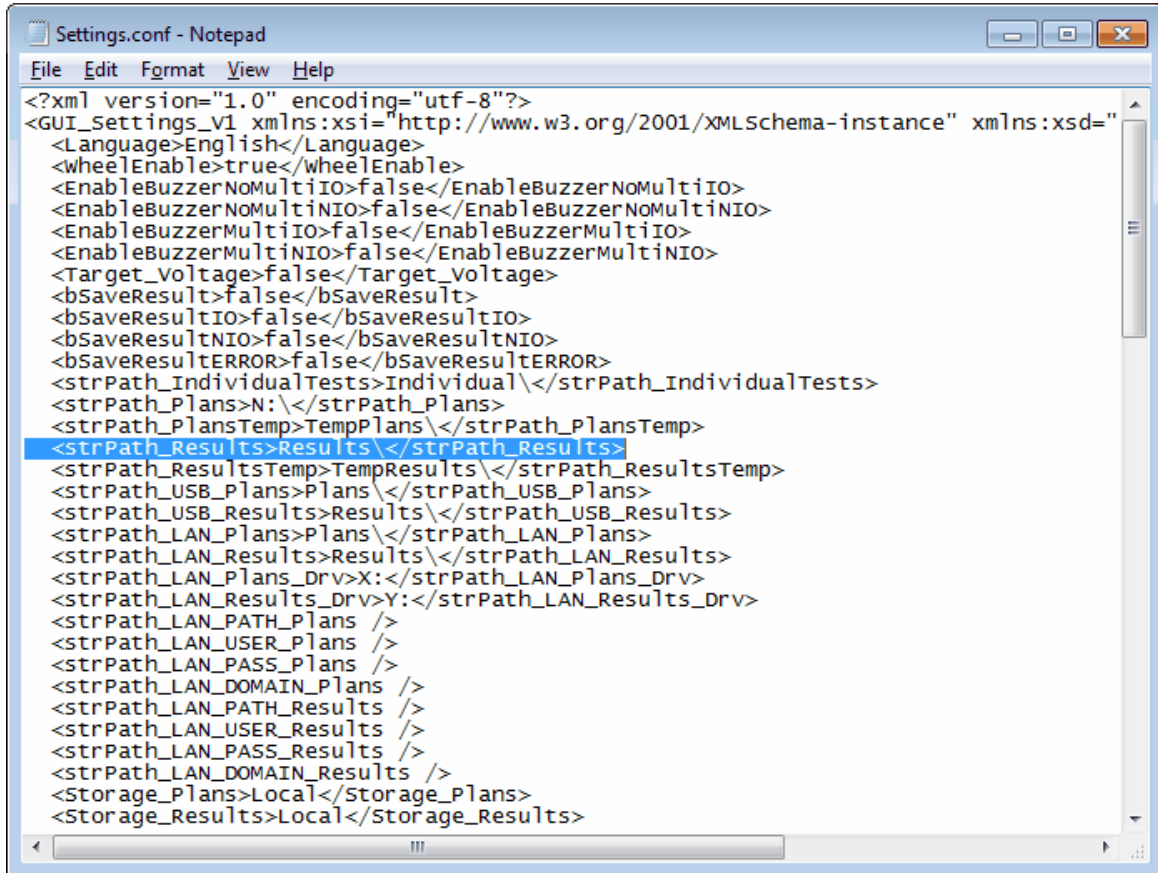
```
<?xml version="1.0" encoding="utf-8"?>
<GUI_Settings_V1 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
  <Language>English</Language>
  <wheelEnable>true</wheelEnable>
  <EnableBuzzerNoMultiIO>false</EnableBuzzerNoMultiIO>
  <EnableBuzzerNoMultiNIO>false</EnableBuzzerNoMultiNIO>
  <EnableBuzzerMultiIO>false</EnableBuzzerMultiIO>
  <EnableBuzzerMultiNIO>false</EnableBuzzerMultiNIO>
  <Target_Voltage>false</Target_Voltage>
  <bSaveResult>false</bSaveResult>
  <bSaveResultIO>false</bSaveResultIO>
  <bSaveResultNIO>false</bSaveResultNIO>
  <bSaveResultERROR>false</bSaveResultERROR>
  <strPath_IndividualTests>Individual</strPath_IndividualTests>
  <strPath_Plans>Plans</strPath_Plans>
  <strPath_PlansTemp>TempPlans</strPath_PlansTemp>
  <strPath_Results>Results</strPath_Results>
  <strPath_ResultsTemp>TempResults</strPath_ResultsTemp>
  <strPath_USB_Plans>Plans</strPath_USB_Plans>
  <strPath_USB_Results>Results</strPath_USB_Results>
  <strPath_LAN_Plans>Plans</strPath_LAN_Plans>
  <strPath_LAN_Results>Results</strPath_LAN_Results>
  <strPath_LAN_Plans_Drv>X:</strPath_LAN_Plans_Drv>
  <strPath_LAN_Results_Drv>Y:</strPath_LAN_Results_Drv>
  <strPath_LAN_PATH_Plans />
  <strPath_LAN_USER_Plans />
  <strPath_LAN_PASS_Plans />
  <strPath_LAN_DOMAIN_Plans />
  <strPath_LAN_PATH_Results />
  <strPath_LAN_USER_Results />
  <strPath_LAN_PASS_Results />
  <strPath_LAN_DOMAIN_Results />
  <Storage_Plans>Local</Storage_Plans>
  <Storage_Results>Local</Storage_Results>
```

Change the text **Plans** into **N:**. Be carefull not to forget the ending character ****.



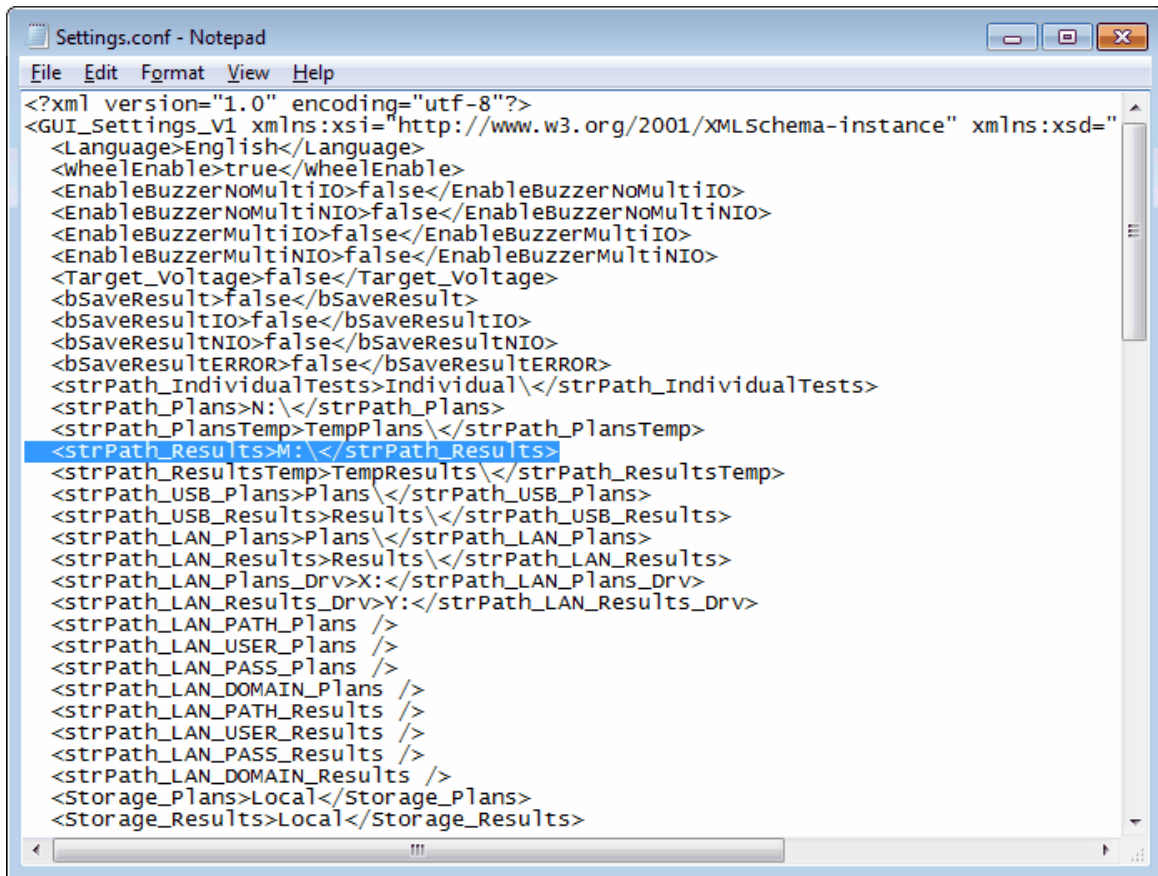
```
<?xml version="1.0" encoding="utf-8"?>
<GUI_Settings_V1 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
  <Language>English</Language>
  <wheelEnable>true</wheelEnable>
  <EnableBuzzerNoMultiIO>false</EnableBuzzerNoMultiIO>
  <EnableBuzzerNoMultiNIO>false</EnableBuzzerNoMultiNIO>
  <EnableBuzzerMultiIO>false</EnableBuzzerMultiIO>
  <EnableBuzzerMultiNIO>false</EnableBuzzerMultiNIO>
  <Target_voltage>false</Target_voltage>
  <bSaveResult>false</bSaveResult>
  <bSaveResultIO>false</bSaveResultIO>
  <bSaveResultNIO>false</bSaveResultNIO>
  <bSaveResultERROR>false</bSaveResultERROR>
  <strPath_IndividualTests>Individual\</strPath_IndividualTests>
  <strPath_Plans>N:\</strPath_Plans>
  <strPath_PlansTemp>TempPlans\</strPath_PlansTemp>
  <strPath_Results>Results\</strPath_Results>
  <strPath_ResultsTemp>TempResults\</strPath_ResultsTemp>
  <strPath_USB_Plans>Plans\</strPath_USB_Plans>
  <strPath_USB_Results>Results\</strPath_USB_Results>
  <strPath_LAN_Plans>Plans\</strPath_LAN_Plans>
  <strPath_LAN_Results>Results\</strPath_LAN_Results>
  <strPath_LAN_Plans_Drv>X:</strPath_LAN_Plans_Drv>
  <strPath_LAN_Results_Drv>Y:</strPath_LAN_Results_Drv>
  <strPath_LAN_PATH_Plans />
  <strPath_LAN_USER_Plans />
  <strPath_LAN_PASS_Plans />
  <strPath_LAN_DOMAIN_Plans />
  <strPath_LAN_PATH_Results />
  <strPath_LAN_USER_Results />
  <strPath_LAN_PASS_Results />
  <strPath_LAN_DOMAIN_Results />
  <Storage_Plans>Local</Storage_Plans>
  <Storage_Results>Local</Storage_Results>
```

Find the line with the entry `strPath_Results`.



```
<?xml version="1.0" encoding="utf-8"?>
<GUI_Settings_V1 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
  <Language>English</Language>
  <wheelEnable>true</wheelEnable>
  <EnableBuzzerNoMultiIO>false</EnableBuzzerNoMultiIO>
  <EnableBuzzerNoMultiNIO>false</EnableBuzzerNoMultiNIO>
  <EnableBuzzerMultiIO>false</EnableBuzzerMultiIO>
  <EnableBuzzerMultiNIO>false</EnableBuzzerMultiNIO>
  <Target_Voltage>false</Target_Voltage>
  <bSaveResult>false</bSaveResult>
  <bSaveResultIO>false</bSaveResultIO>
  <bSaveResultNIO>false</bSaveResultNIO>
  <bSaveResultERROR>false</bSaveResultERROR>
  <strPath_IndividualTests>Individual</strPath_IndividualTests>
  <strPath_Plans>N:\</strPath_Plans>
  <strPath_PlansTemp>TempPlans</strPath_PlansTemp>
  <strPath_Results>Results</strPath_Results>
  <strPath_ResultsTemp>TempResults</strPath_ResultsTemp>
  <strPath_USB_Plans>Plans</strPath_USB_Plans>
  <strPath_USB_Results>Results</strPath_USB_Results>
  <strPath_LAN_Plans>Plans</strPath_LAN_Plans>
  <strPath_LAN_Results>Results</strPath_LAN_Results>
  <strPath_LAN_Plans_Drv>X:</strPath_LAN_Plans_Drv>
  <strPath_LAN_Results_Drv>Y:</strPath_LAN_Results_Drv>
  <strPath_LAN_PATH_Plans />
  <strPath_LAN_USER_Plans />
  <strPath_LAN_PASS_Plans />
  <strPath_LAN_DOMAIN_Plans />
  <strPath_LAN_PATH_Results />
  <strPath_LAN_USER_Results />
  <strPath_LAN_PASS_Results />
  <strPath_LAN_DOMAIN_Results />
  <Storage_Plans>Local</Storage_Plans>
  <Storage_Results>Local</Storage_Results>
```

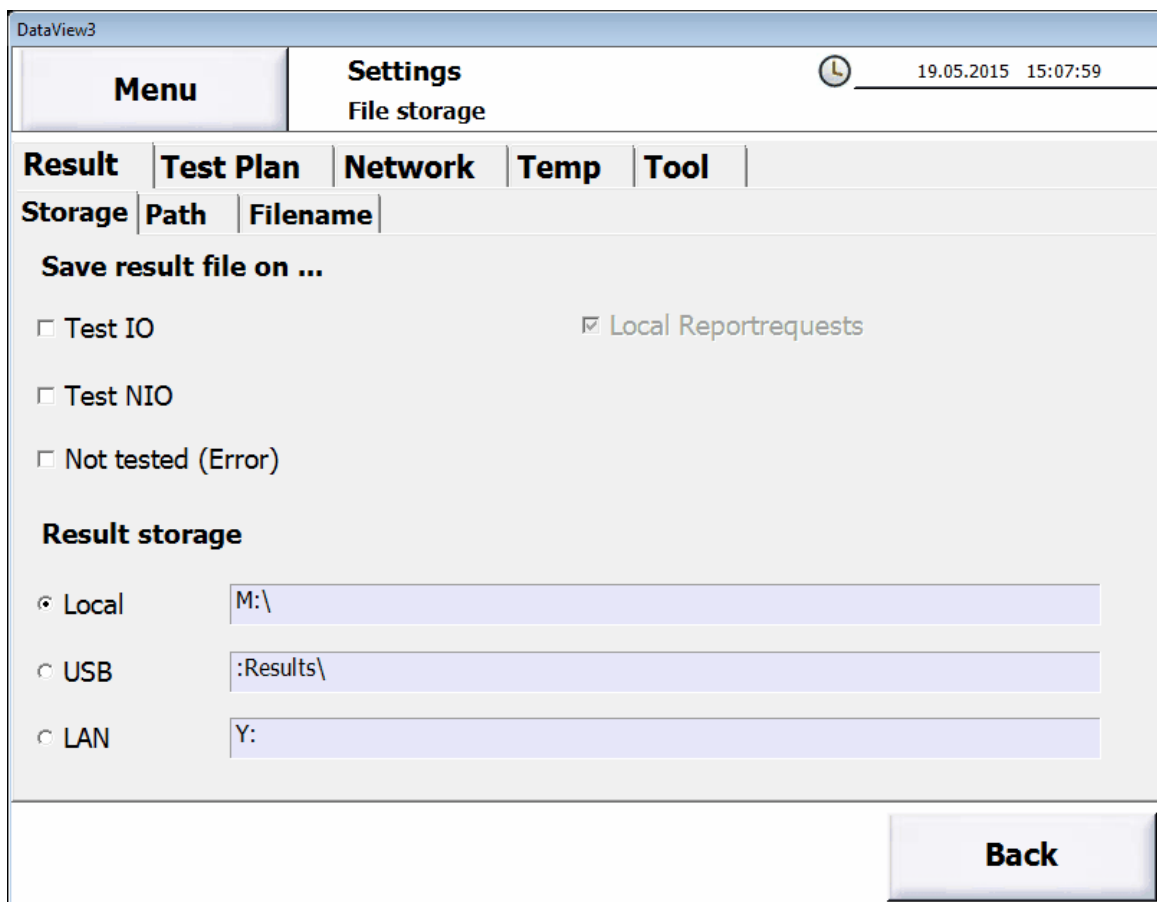
Change the text **Results** into **M:**. Be carefull not to forget the ending character ****.



```
Settings.conf - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="utf-8"?>
<GUI_Settings_V1 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
  <Language>English</Language>
  <wheelEnable>true</wheelEnable>
  <EnableBuzzerNoMultiIO>false</EnableBuzzerNoMultiIO>
  <EnableBuzzerNoMultiNIO>false</EnableBuzzerNoMultiNIO>
  <EnableBuzzerMultiIO>false</EnableBuzzerMultiIO>
  <EnableBuzzerMultiNIO>false</EnableBuzzerMultiNIO>
  <Target_voltage>false</Target_voltage>
  <bSaveResult>false</bSaveResult>
  <bSaveResultIO>false</bSaveResultIO>
  <bSaveResultNIO>false</bSaveResultNIO>
  <bSaveResultERROR>false</bSaveResultERROR>
  <strPath_IndividualTests>Individual\</strPath_IndividualTests>
  <strPath_Plans>N:\</strPath_Plans>
  <strPath_PlansTemp>TempPlans\</strPath_PlansTemp>
  <strPath_Results>M:\</strPath_Results>
  <strPath_ResultsTemp>TempResults\</strPath_ResultsTemp>
  <strPath_USB_Plans>Plans\</strPath_USB_Plans>
  <strPath_USB_Results>Results\</strPath_USB_Results>
  <strPath_LAN_Plans>Plans\</strPath_LAN_Plans>
  <strPath_LAN_Results>Results\</strPath_LAN_Results>
  <strPath_LAN_Plans_Drv>X:</strPath_LAN_Plans_Drv>
  <strPath_LAN_Results_Drv>Y:</strPath_LAN_Results_Drv>
  <strPath_LAN_PATH_Plans />
  <strPath_LAN_USER_Plans />
  <strPath_LAN_PASS_Plans />
  <strPath_LAN_DOMAIN_Plans />
  <strPath_LAN_PATH_Results />
  <strPath_LAN_USER_Results />
  <strPath_LAN_PASS_Results />
  <strPath_LAN_DOMAIN_Results />
  <Storage_Plans>Local</Storage_Plans>
  <Storage_Results>Local</Storage_Results>
```

Save the file and close Notepad.

In **ETL DataView 3** the entries are now visible under **Settings** -> **File storage**.



The screenshot shows the 'DataView3' application window with the 'Settings' tab selected. The 'File storage' section is active. It features a 'Menu' bar with 'Result', 'Test Plan', 'Network', 'Temp', and 'Tool'. Below this is a 'Storage' section with a table showing 'Path' and 'Filename'. The 'Save result file on ...' section has three checkboxes: 'Test IO', 'Test NIO', and 'Not tested (Error)'. The 'Local Reportrequests' checkbox is checked. The 'Result storage' section has three radio buttons: 'Local', 'USB', and 'LAN'. The 'Local' radio button is selected, and its corresponding path is 'M:\'. The 'USB' radio button is unselected, and its corresponding path is ':Results\'. The 'LAN' radio button is unselected, and its corresponding path is 'Y:'. A 'Back' button is located at the bottom right.

Storage	Path	Filename
Test IO		
Test NIO		
Not tested (Error)		

Save result file on ...

☐ Test IO ☒ Local Reportrequests

☐ Test NIO

☐ Not tested (Error)

Result storage

☒ Local M:\

☐ USB :Results\

☐ LAN Y:

Back

DataView3

Menu	Settings File storage	🕒 19.05.2015 15:08:34		
Result	Test Plan	Network	Temp	Tool

Test plan storage

☒ Local N:\

☐ USB :Plans\

☐ LAN X:

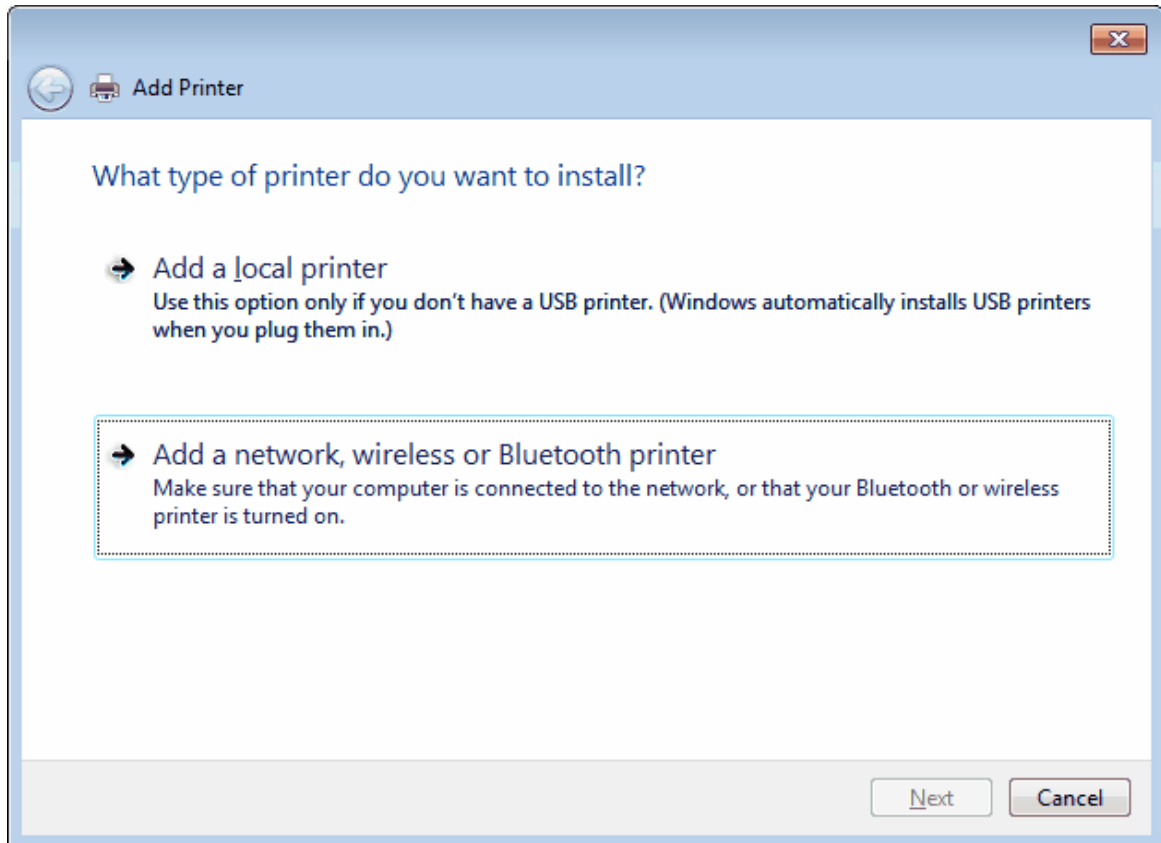
☐ Save after Execution

Back

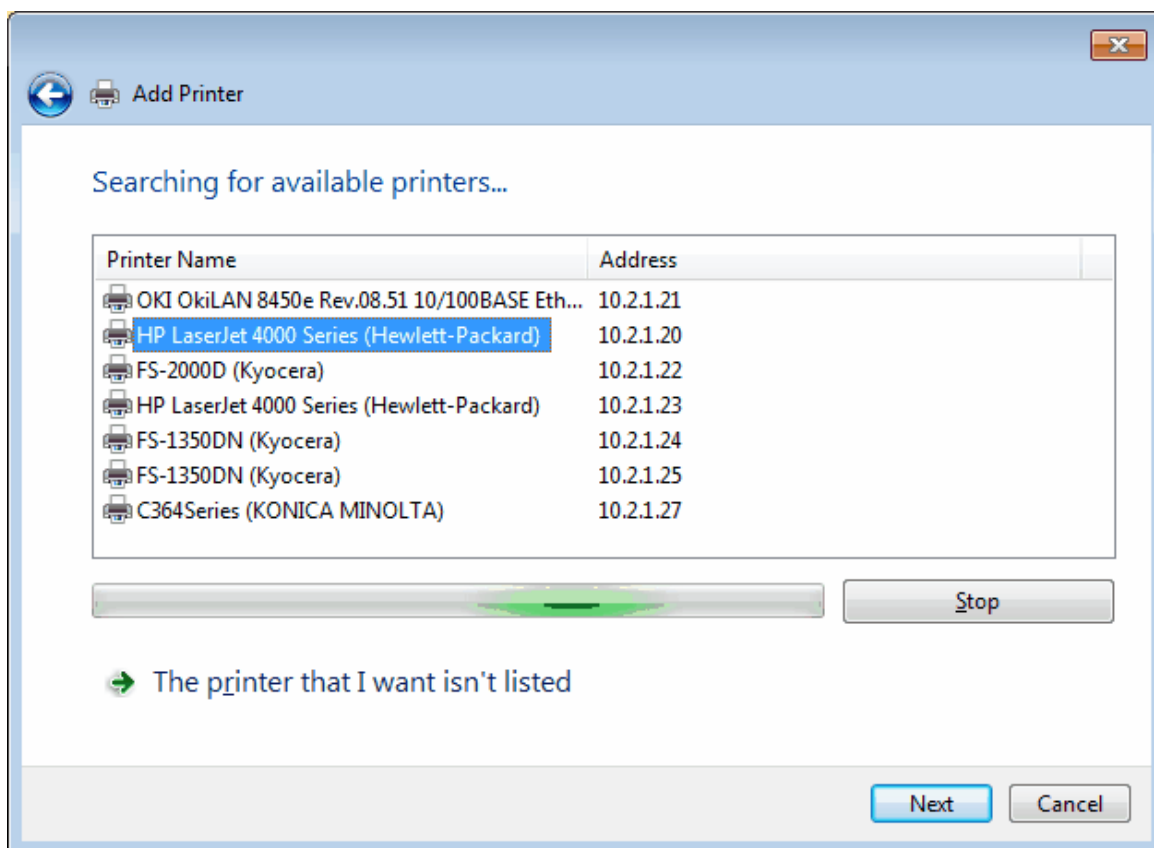
2.1.5.1.2 Setup a network printer

If you want to use a network printer you must setup the printer in Windows.

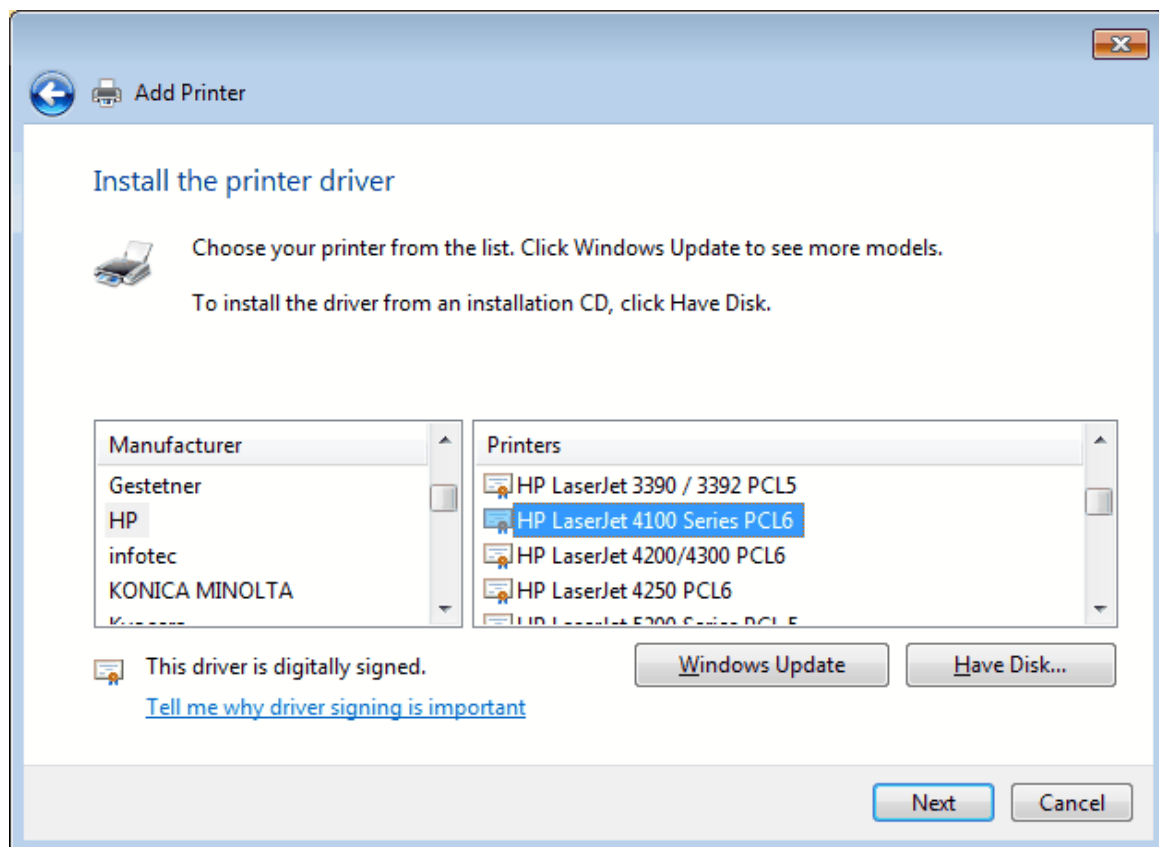
Open **Devices and Printers** from the start menu. Chose from the menu bar **Add a printer**. In the opening dialog choose **Add a network, wireless or Bluetooth printer**.



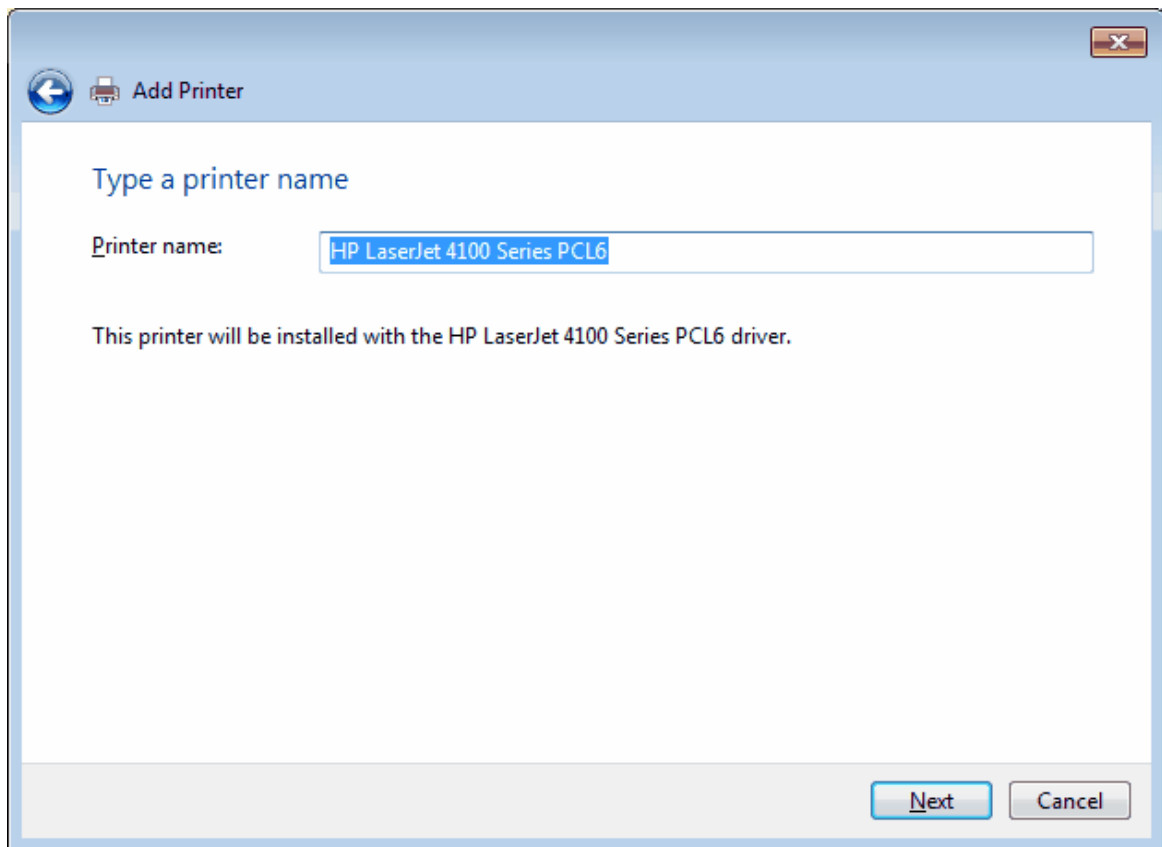
Now the available network printers are searched and will be displayed in a list box. Choose the printer from the list box.



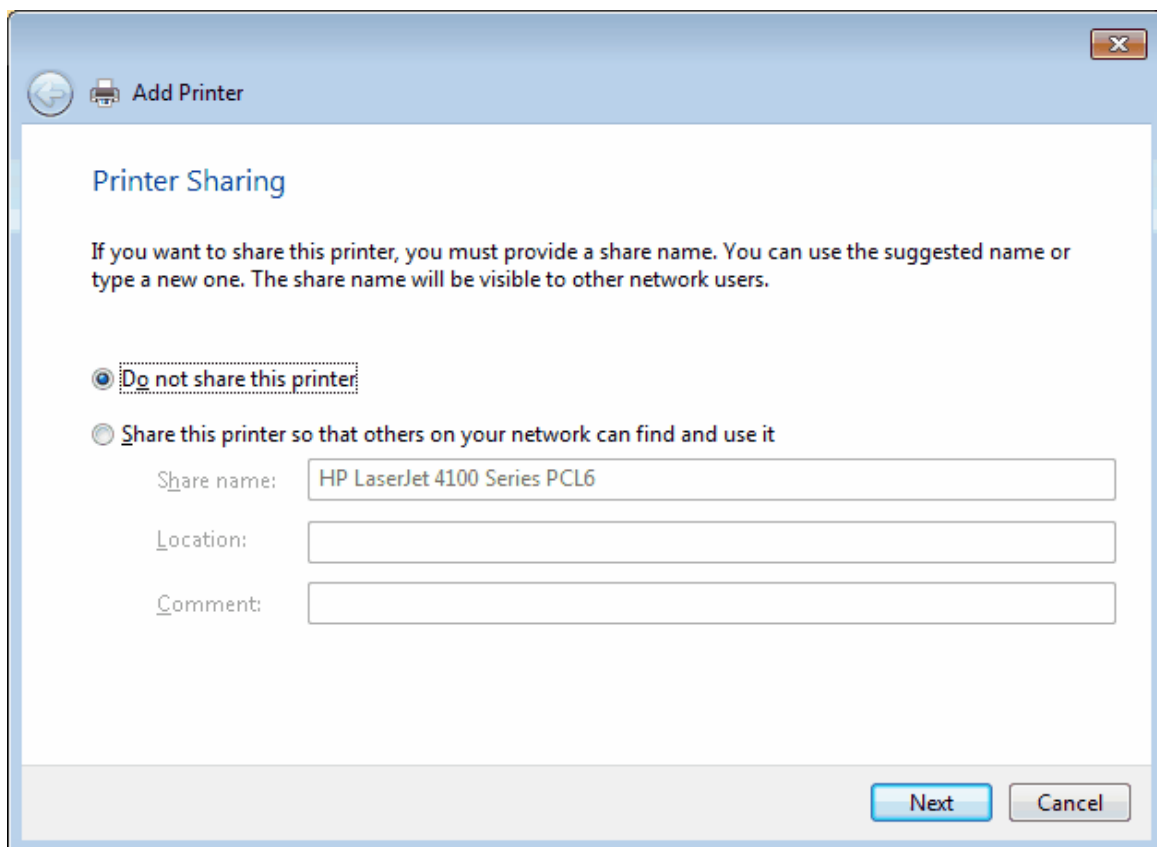
You will be asked to install a driver. Choose the corresponding driver.



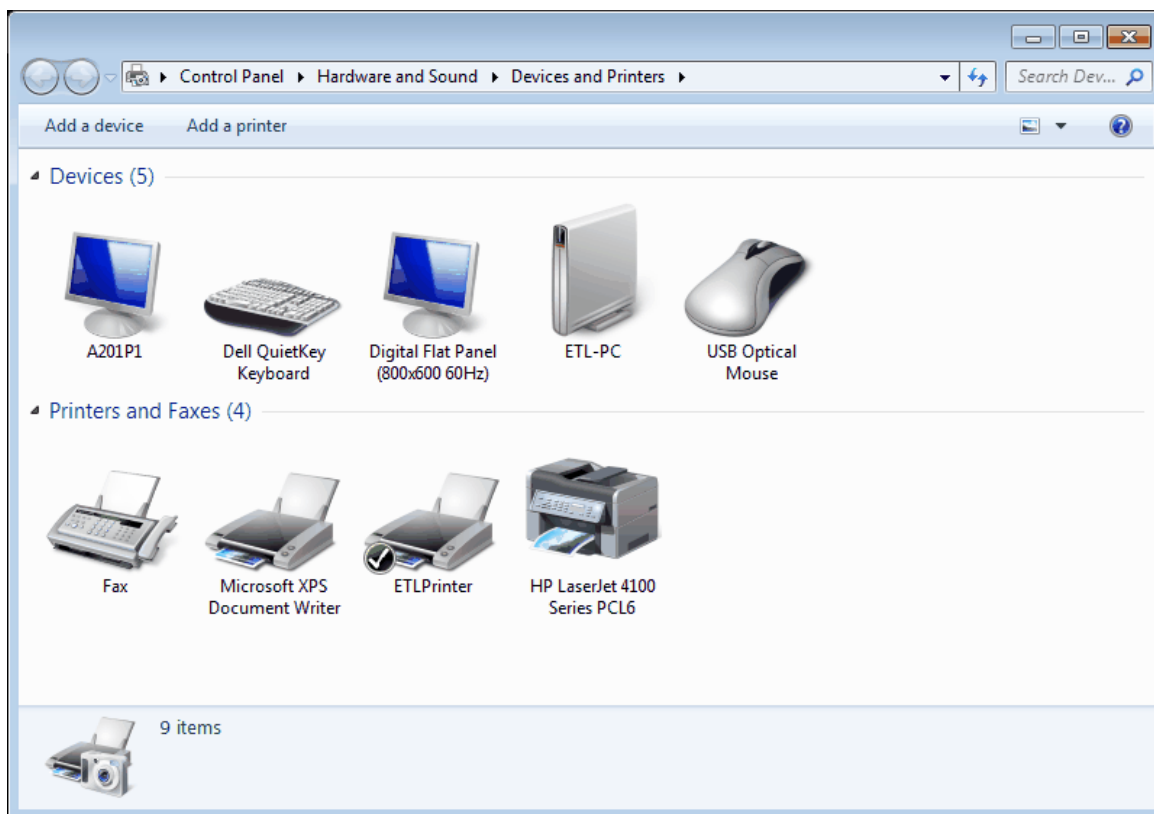
After the installation of the printer driver you can enter a name for the printer.



Do not share the printer.



After that dialog the printer will be displayed in the list of the local printers.

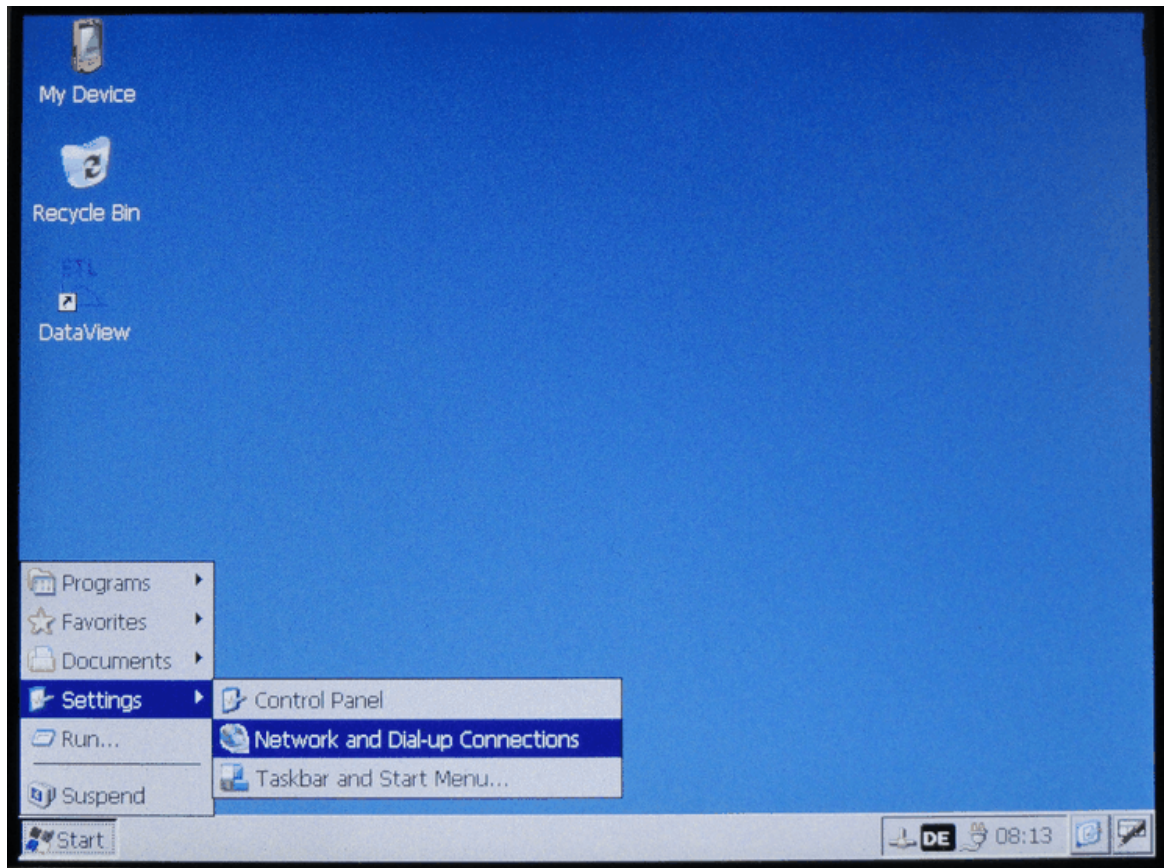


2.1.5.2 Variants X4 oder X5

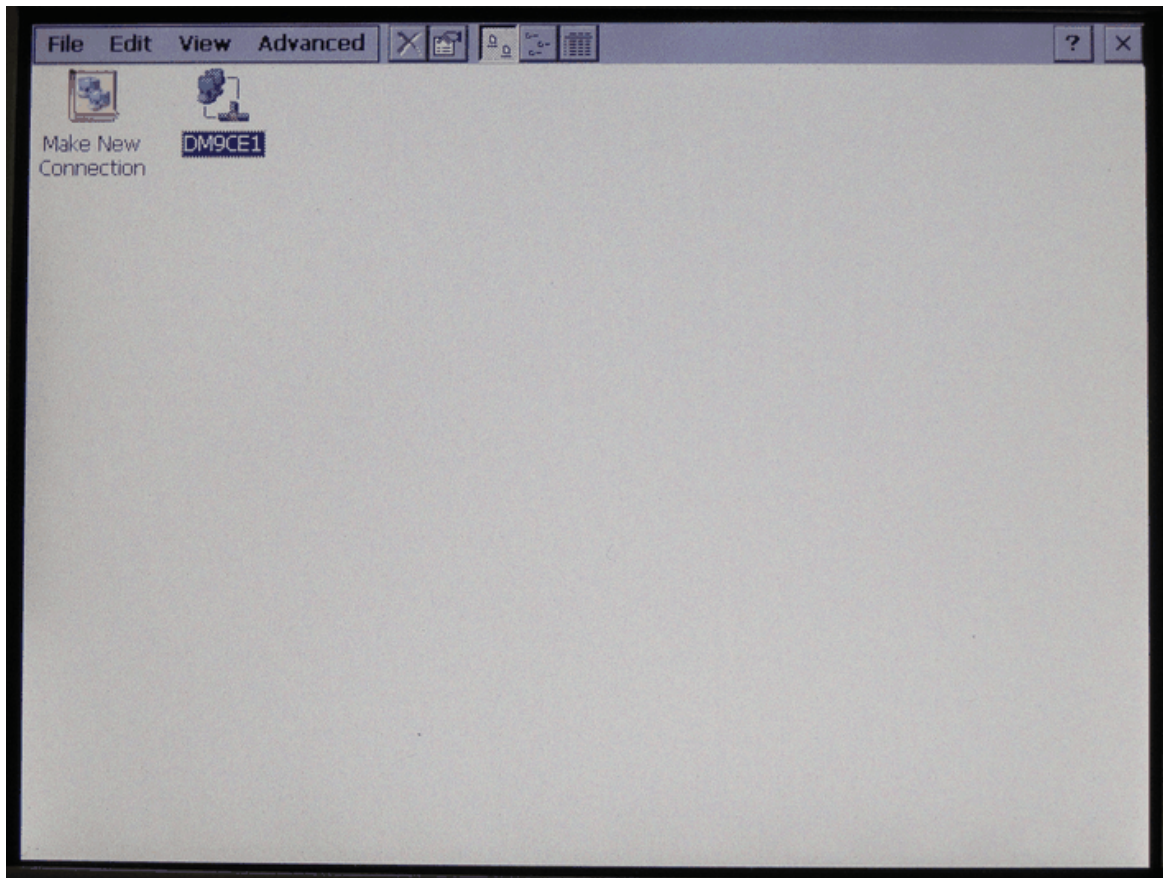
2.1.5.2.1 Network setup

After powering on the system end **ETL DataView 3** using the buttons **Workstation**, **Exit Dataview** and close the opening dialog with **Yes**.

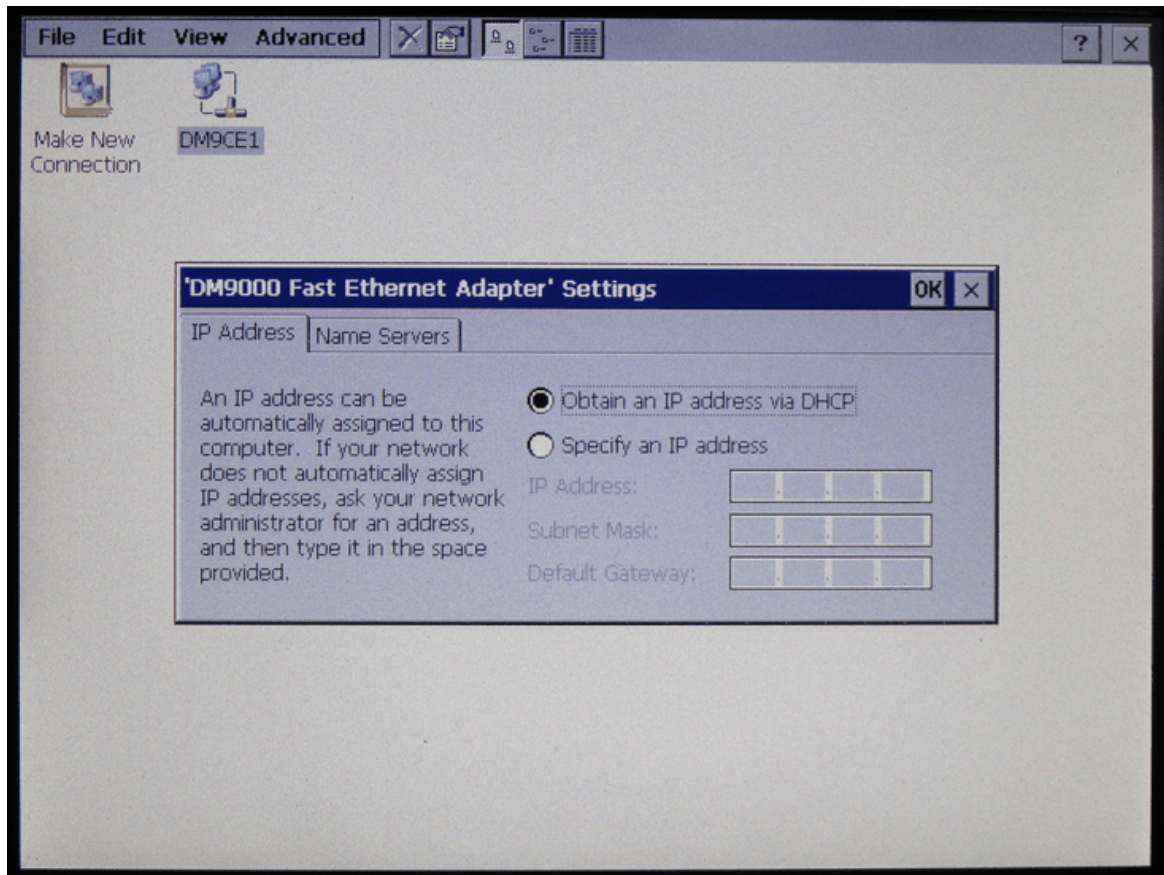
Chosse from start menu **Settings** -> **Network and Dial-up Connections**.



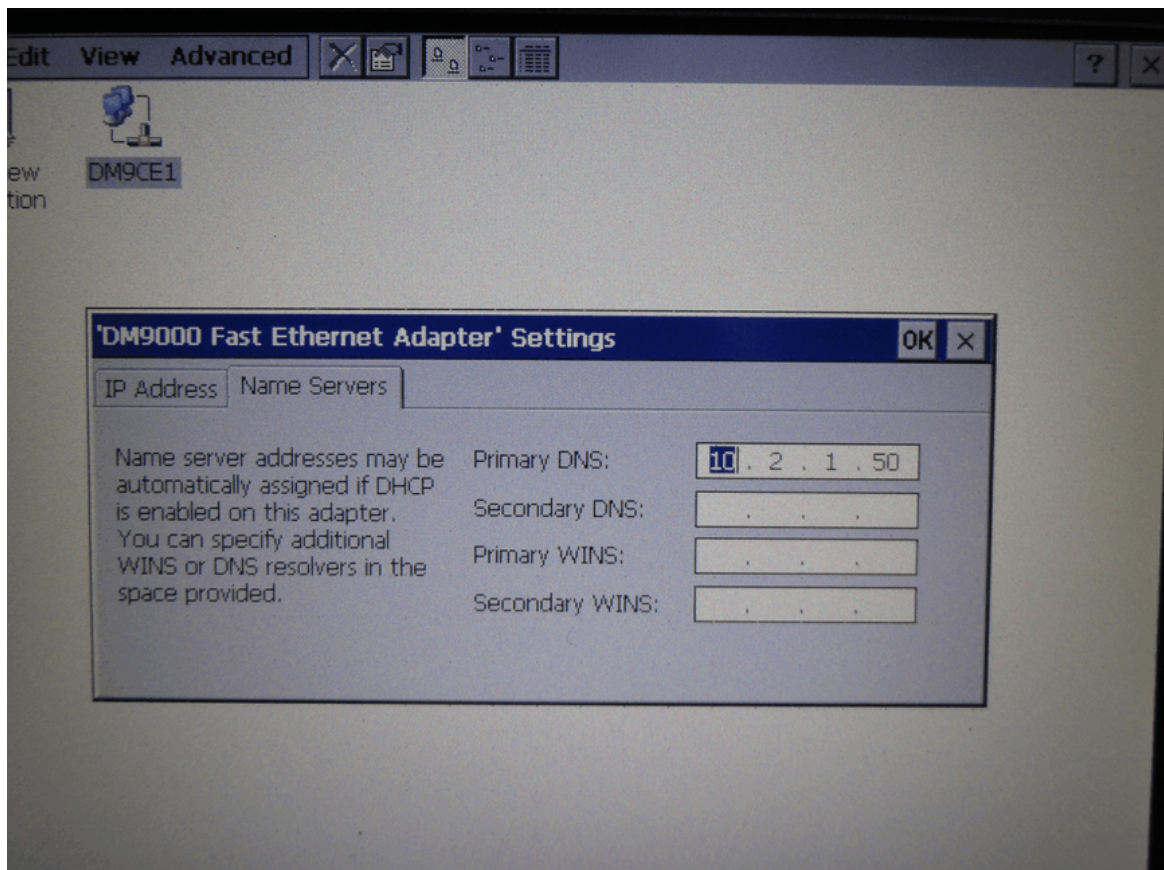
Then choose the network adapter and open it with a double click.



In the opening dialog enter the desired settings. On the property page **IP Address** you choose using a DHCP-server or a fix IP address.



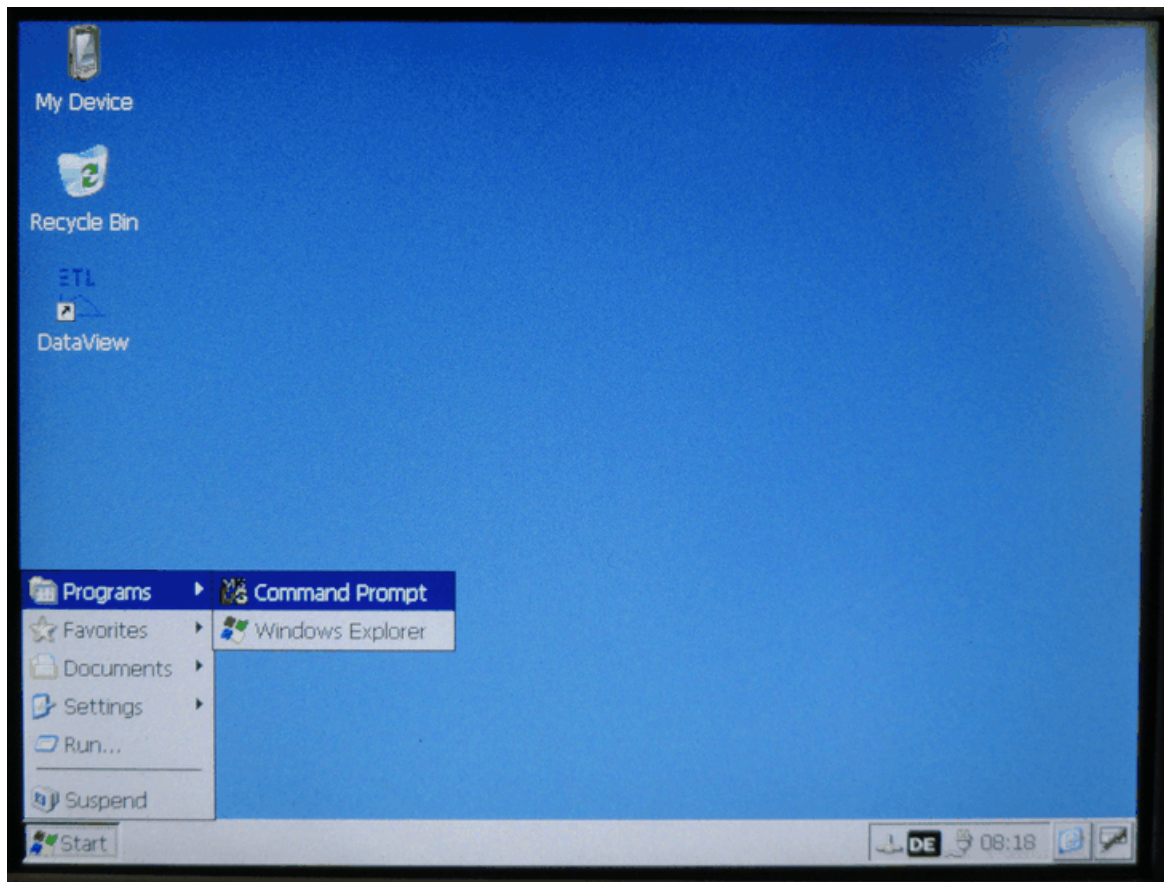
If you are using a fix IP address you must supply the address of the name server on the property page [Name Servers](#).



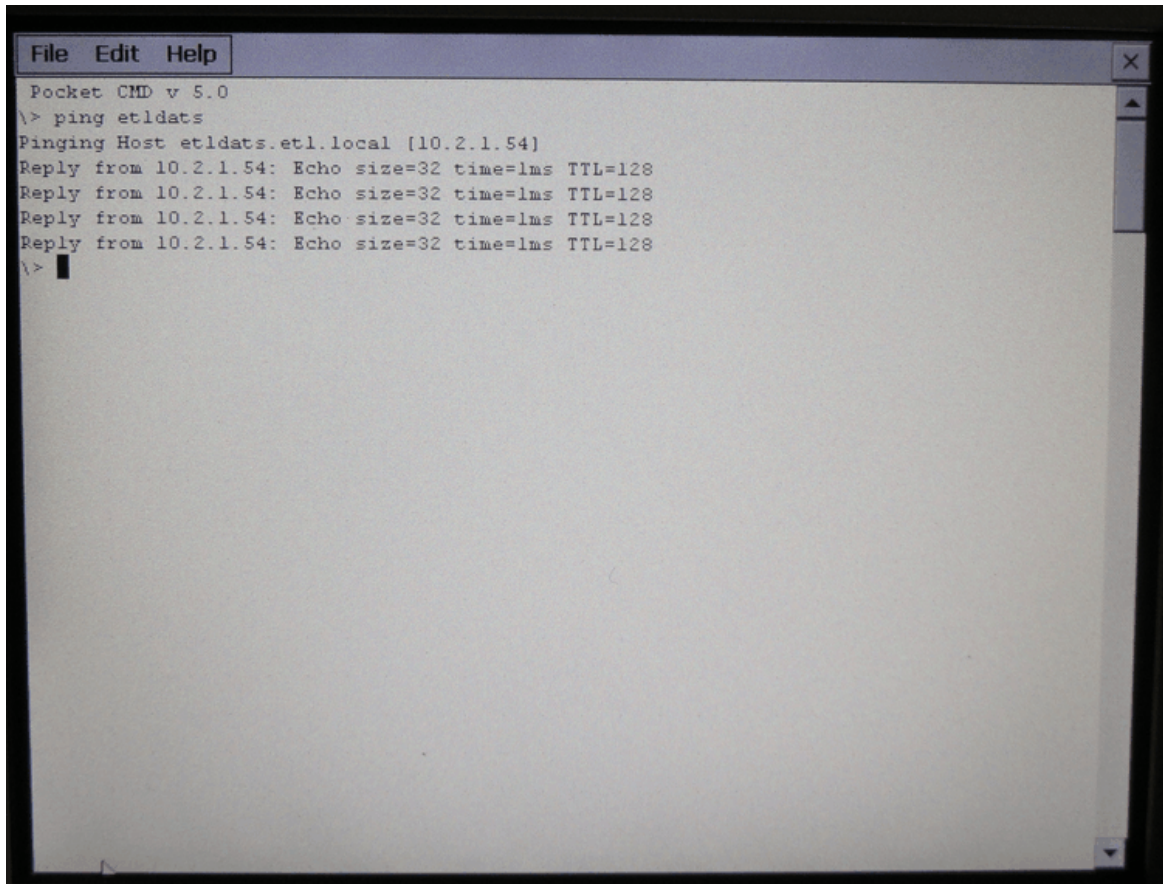
Close the dialog using button [OK](#).

2.1.5.2.2 Checking the network connection

Next you will check if the host can be reached over the network. For that the **ATS400** must be connected with the network. You need to open a **Command Prompt** window.



In the opening windows enter *ping <hostname>*. Replace *<hostname>* with the name of the host you will connect, in the example *etldats*. If there is a connection the answer is like displayed below.



```
File Edit Help
Pocket CMD v 5.0
\> ping etldats
Pinging Host etldats.etl.local [10.2.1.54]
Reply from 10.2.1.54: Echo size=32 time=1ms TTL=128
Reply from 10.2.1.54: Echo size=32 time=1ms TTL=128
Reply from 10.2.1.54: Echo size=32 time=1ms TTL=128
Reply from 10.2.1.54: Echo size=32 time=1ms TTL=128
\>
```

There are two errors which can occur.

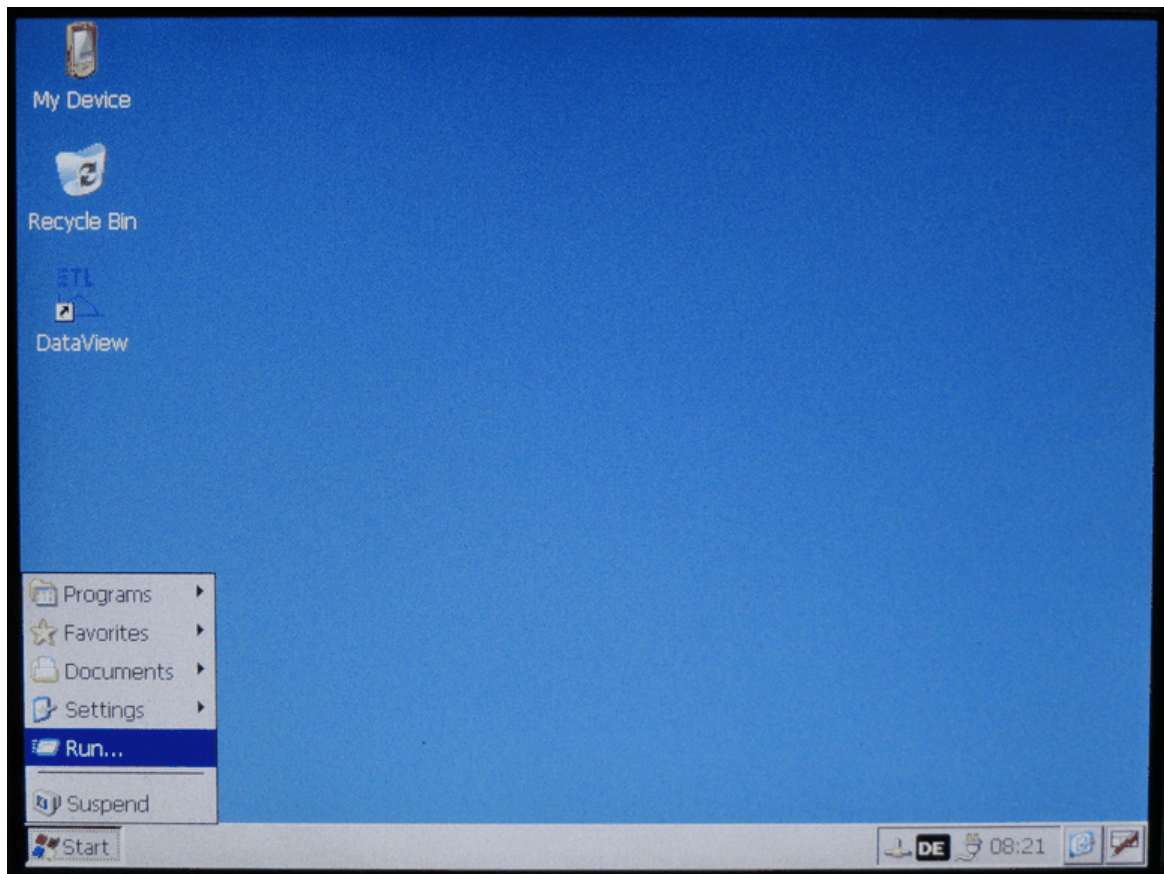
First ping cannot resolve the name of the host. In this case you get a message that the host could not be reached.

Second there is no connection. In this case data packets are lost. In both cases contact your network administrator.

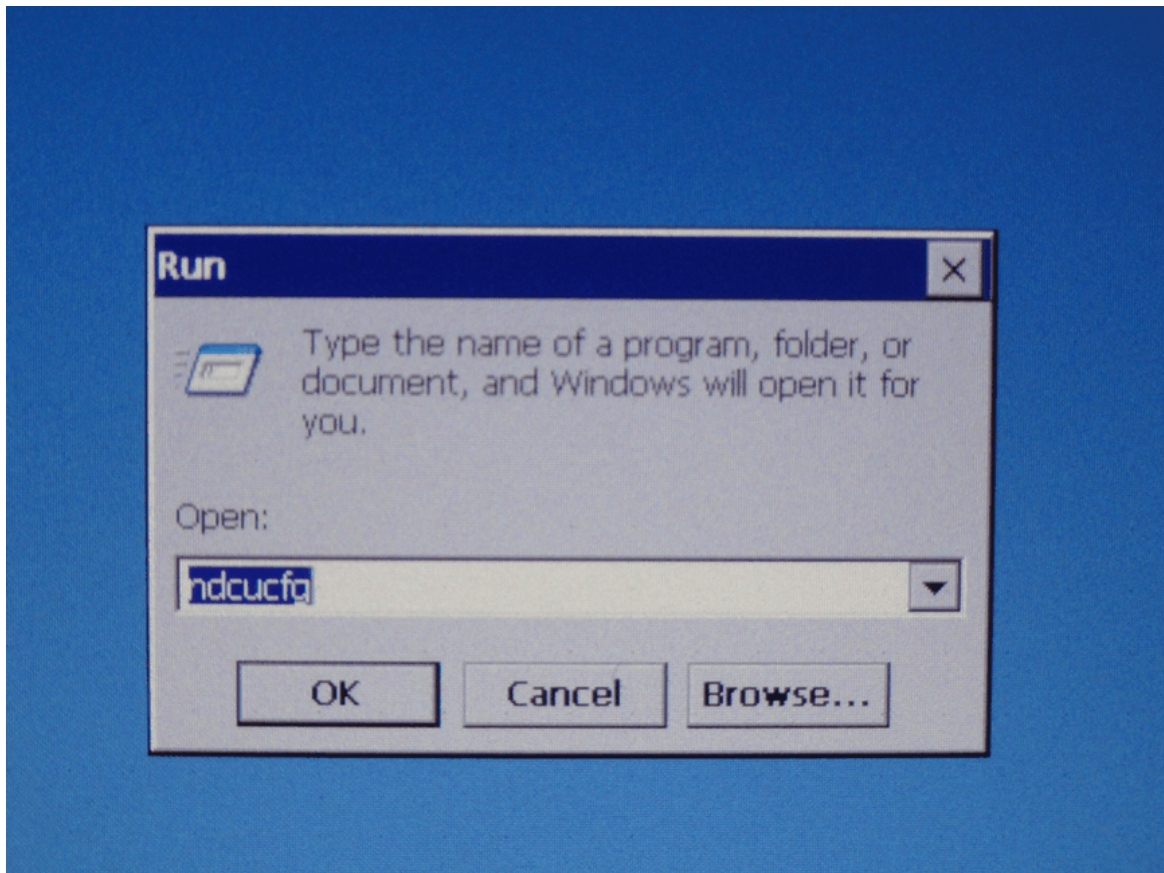
Close the window entering *Exit*.

2.1.5.2.3 Saving the settings

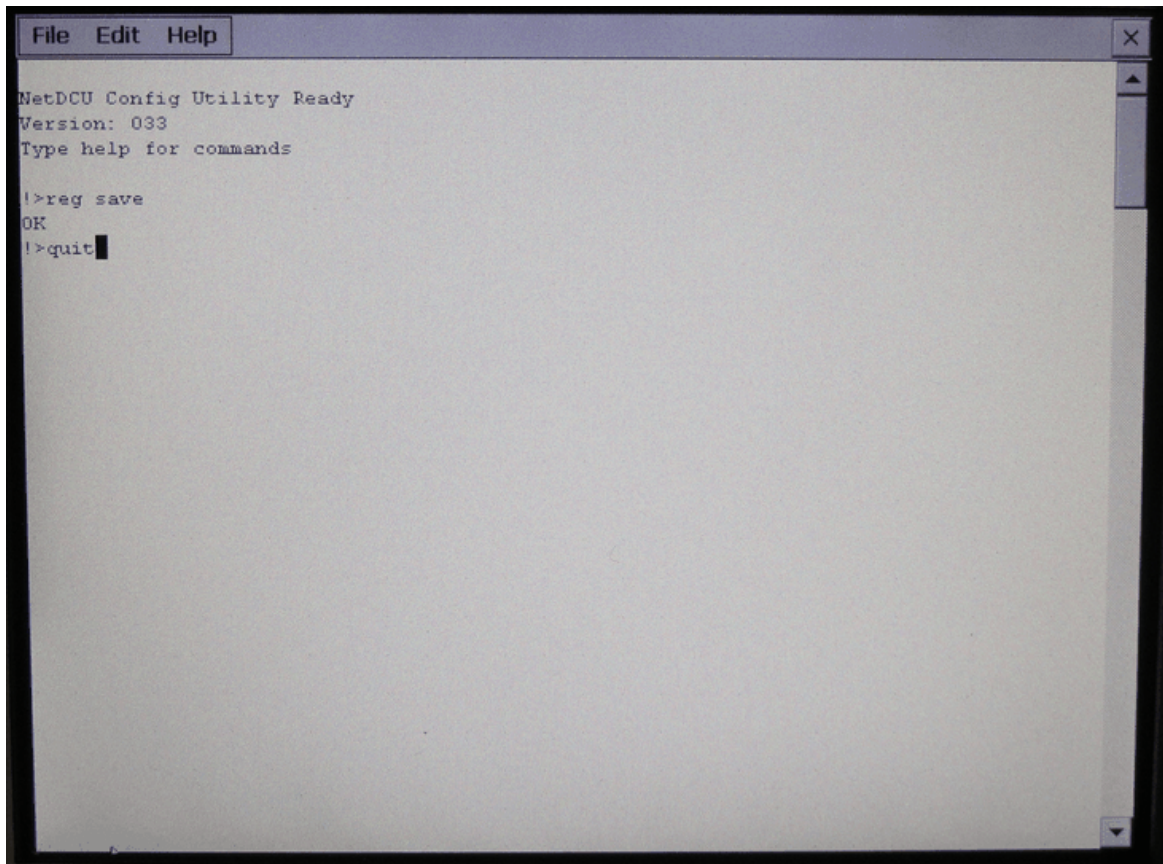
The settings are not persistent and must be saved. Open the [Run...](#) dialog.



In **Run** dialog enter *ndcucfg* and press the Enter key.



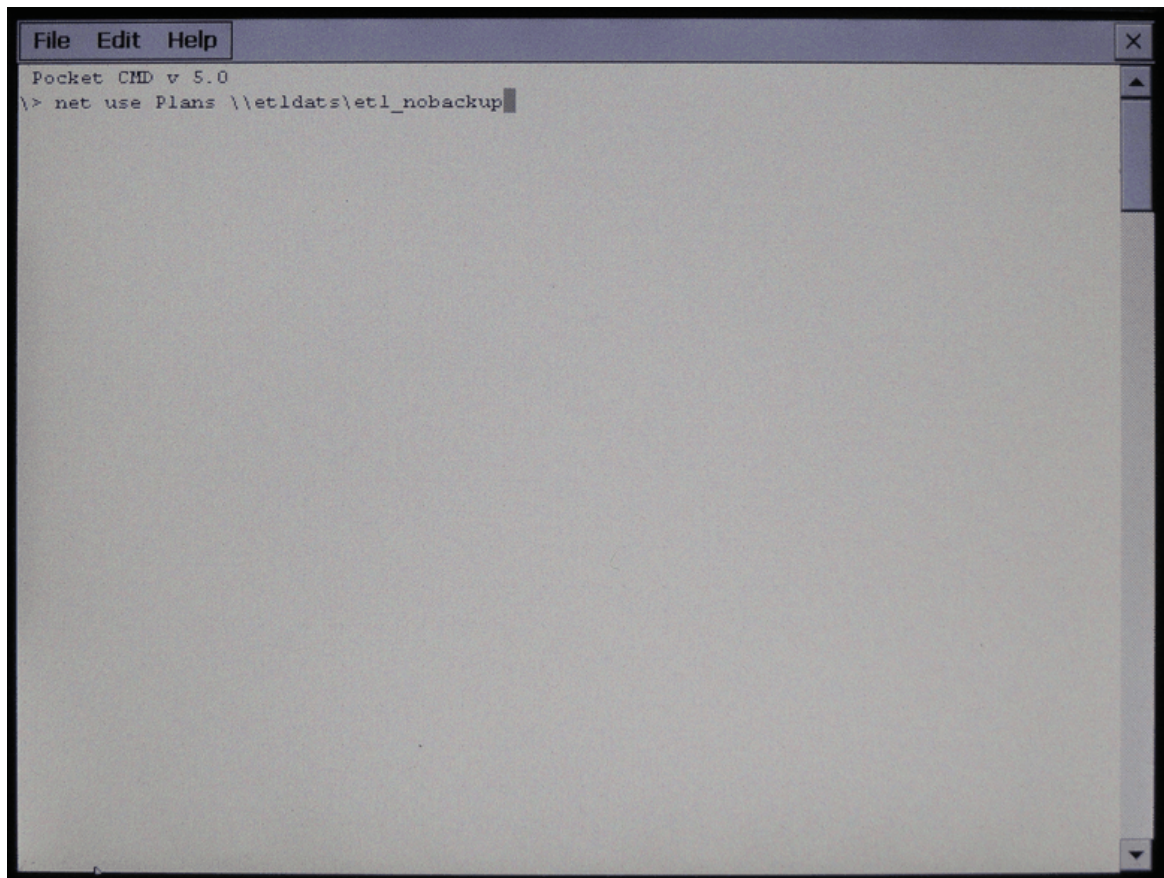
A new window will open. Enter *reg save* into the window and press the Enter key. Close the window entering *quit*.



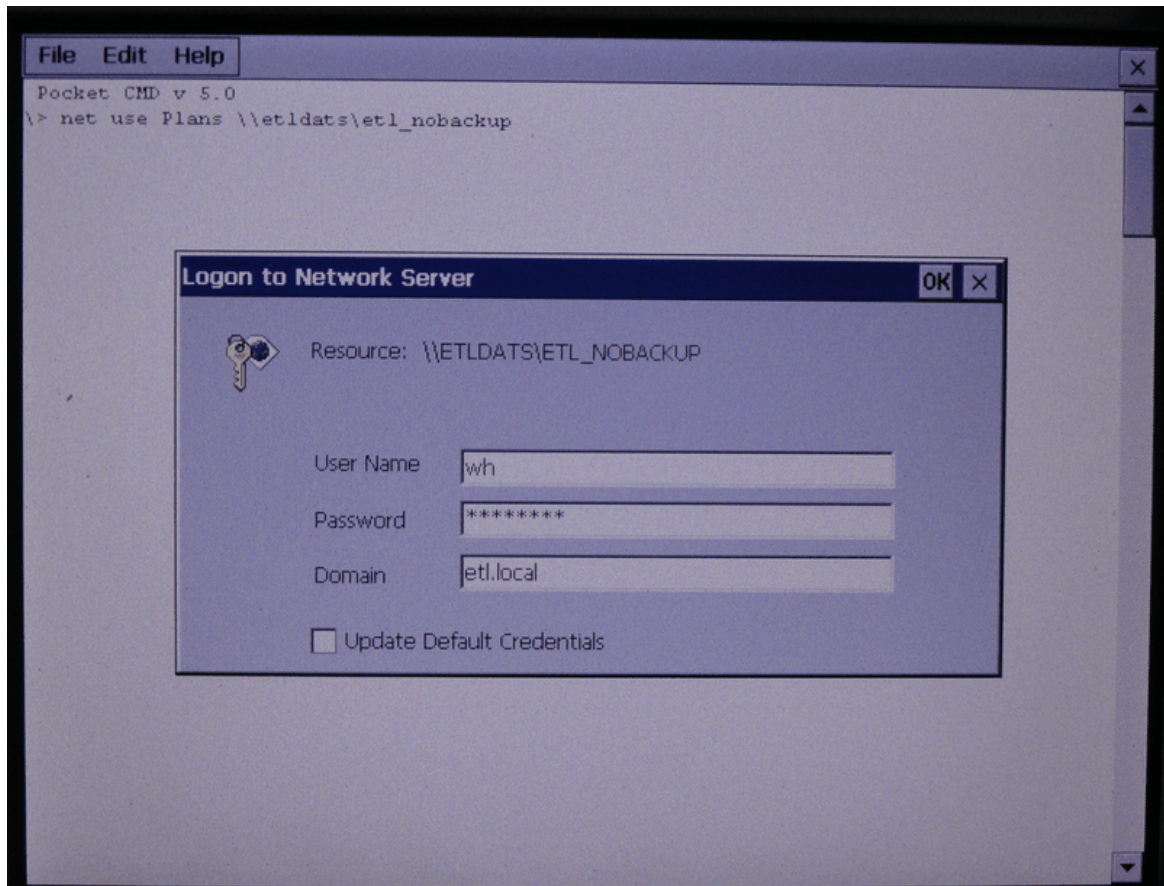
2.1.5.2.4 Checking the share

The share can now be checked. You must open **Command Prompt** again as described above.

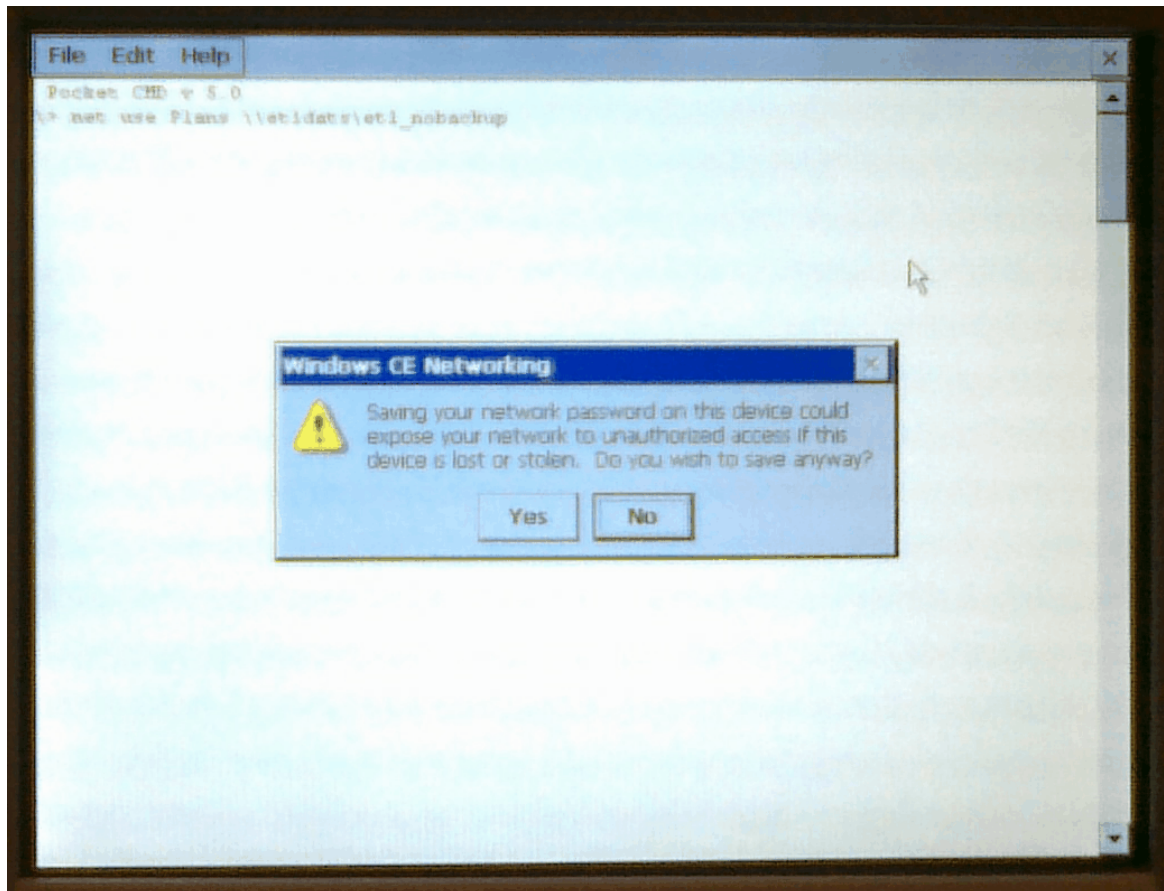
Enter into the window *net use Plans \\<Hostname>\<share name>*. Replace *<Hostname>* with the name of the host, in the example *etldats*, and *<Share name>* with the share name for test plans in the example *etl_nobackup*.



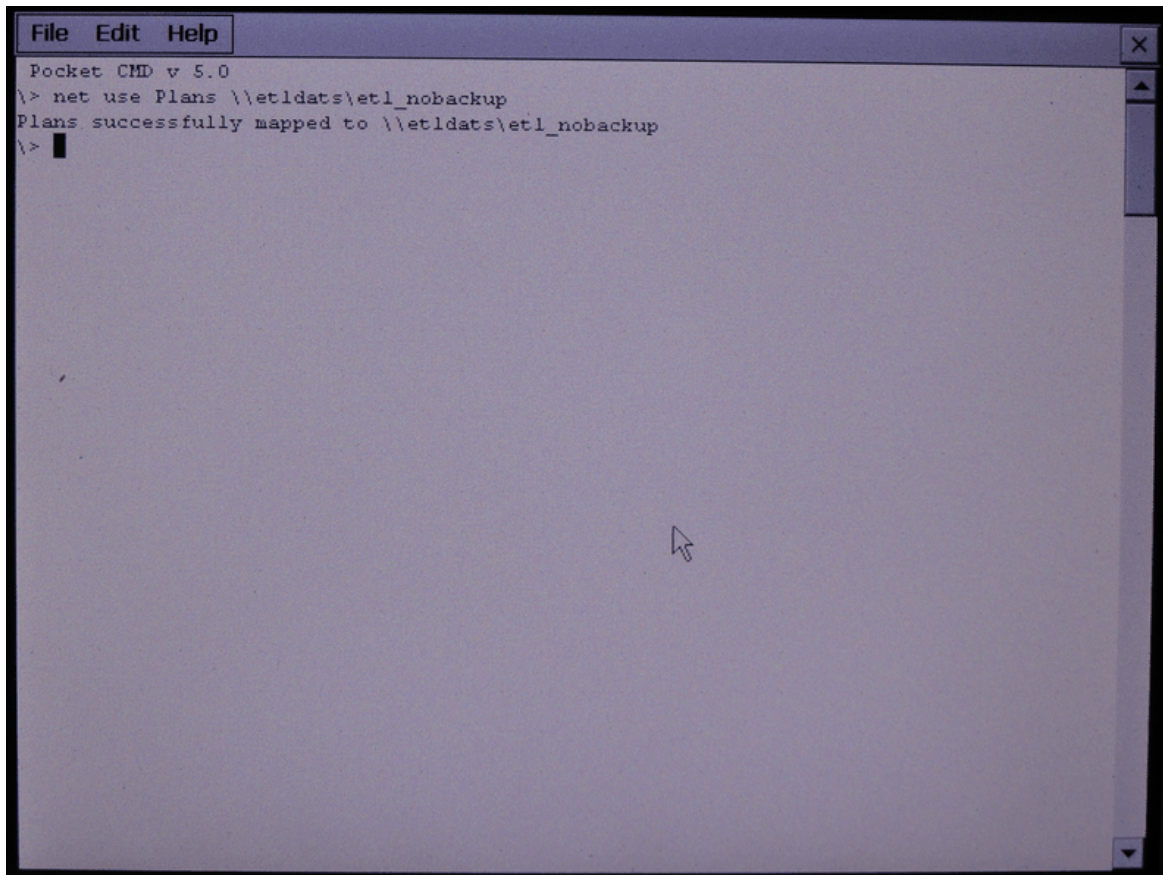
The dialog with the account data for logon will be opened. Enter user name, password and domain.



Next you will be asked if you want the data to be stored. If you store the data you will never be asked again for the logon data.



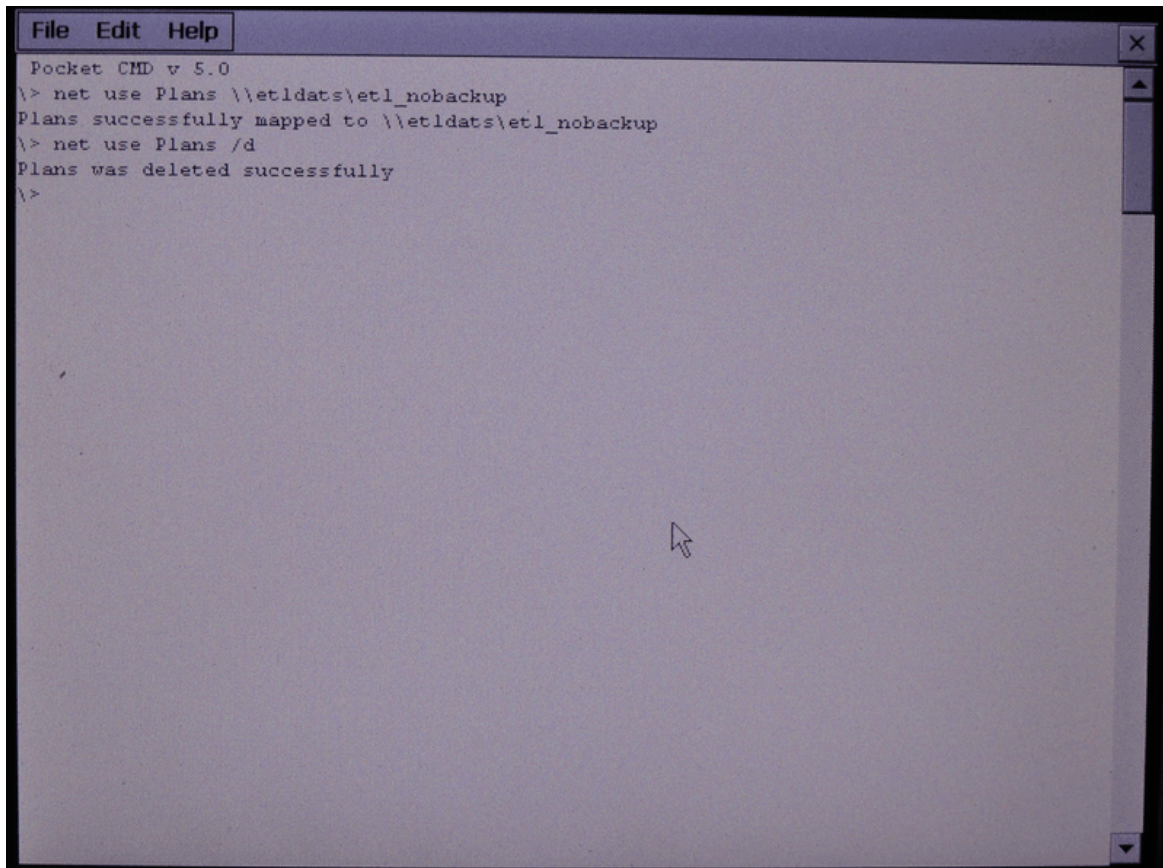
The successfully mapping will be displayed.



```
File Edit Help
Pocket CMD v 5.0
\> net use Plans \\etldats\etl_nobackup
Plans successfully mapped to \\etldats\etl_nobackup
\> █
```

If you get the message **Command failed: status 53** the share can not be used. Contact in this case your network administrator.

Delete the mapping with *net use Plans /d*.



```
Pocket CMD v 5.0
\> net use Plans \\etldats\etl_nobackup
Plans successfully mapped to \\etldats\etl_nobackup
\> net use Plans /d
Plans was deleted successfully
\>
```

Close the window with *exit*.

2.1.5.2.5 Configuration

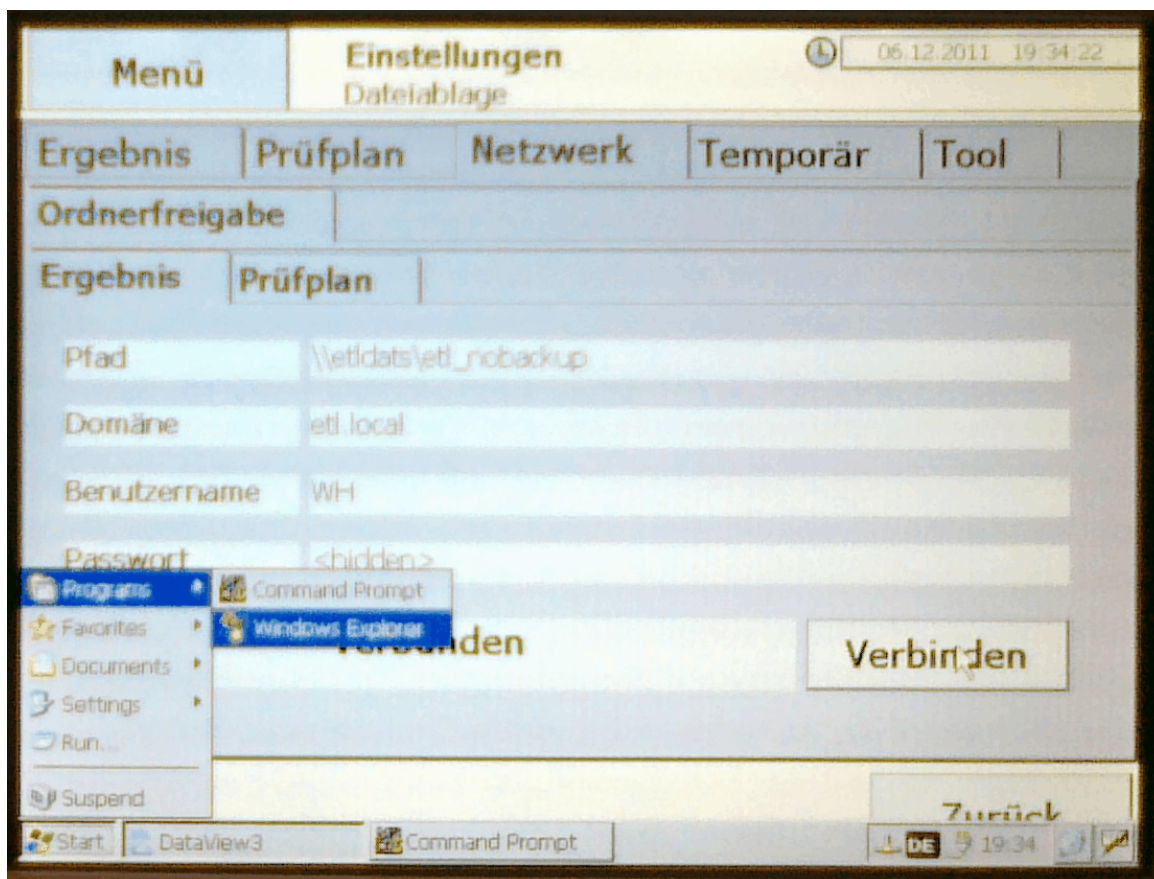
So **ETL DataView 3** can connect with the host it needs the corresponding information. Enter these in **Settings** -> **File storage** in the property pages **Network** -> **Shared folder** -> **Result** resp. **Test plan**.

Menu		Settings	27.05.2015 14:11:19	
		File storage		
Result	Test Plan	Network	Temp	Tool
Shared folder				
Result	Test Plan			
Path	<input type="text" value="\\etldats\etl_nobackup"/>			
Domain	<input type="text" value="etl.local"/>			
Username	<input type="text" value="WH"/>			
Password	<input type="text" value="<hidden>"/>			
Connected			Connect	

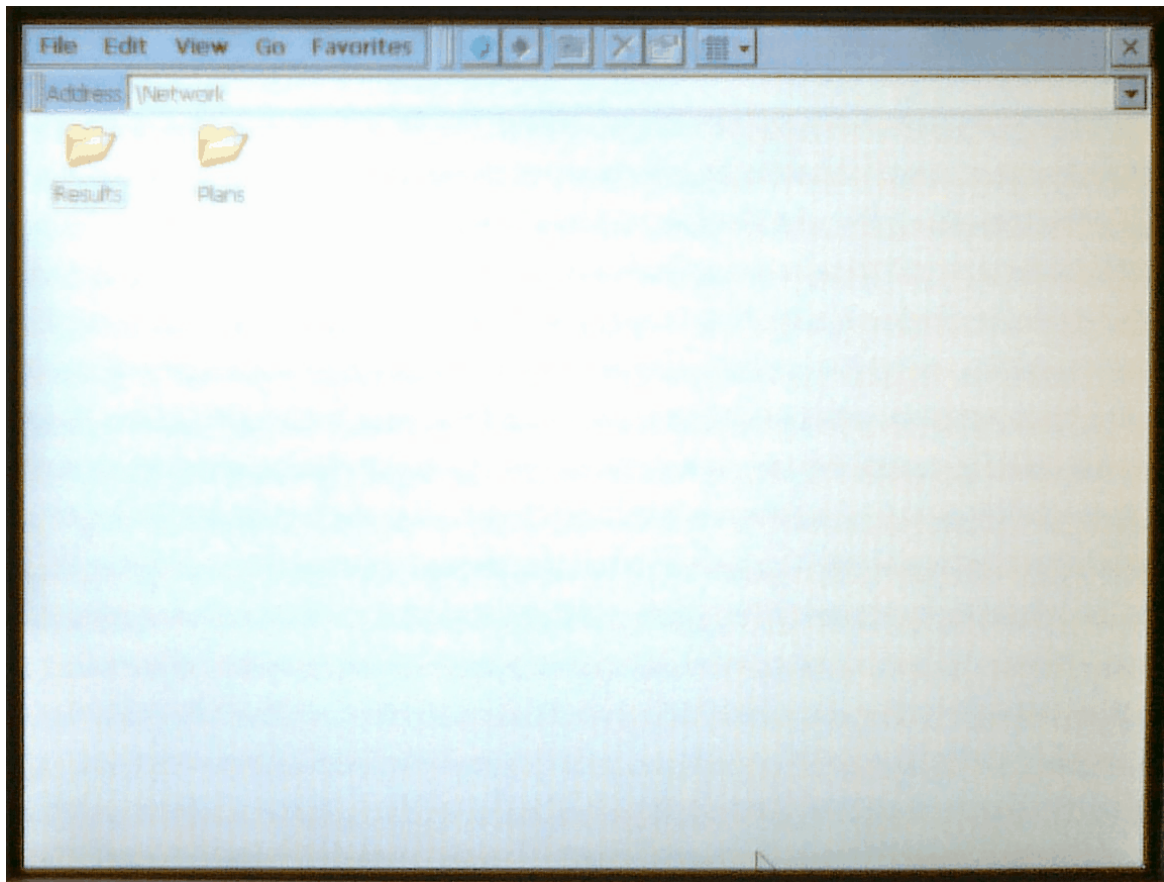
Back

After entering the data you can establish a connection clicking on button **Connect**. If the connection is successful the text changes from **Not connected** to **Connected**.

You can check a successful connection by opening **Windows Explorer**.



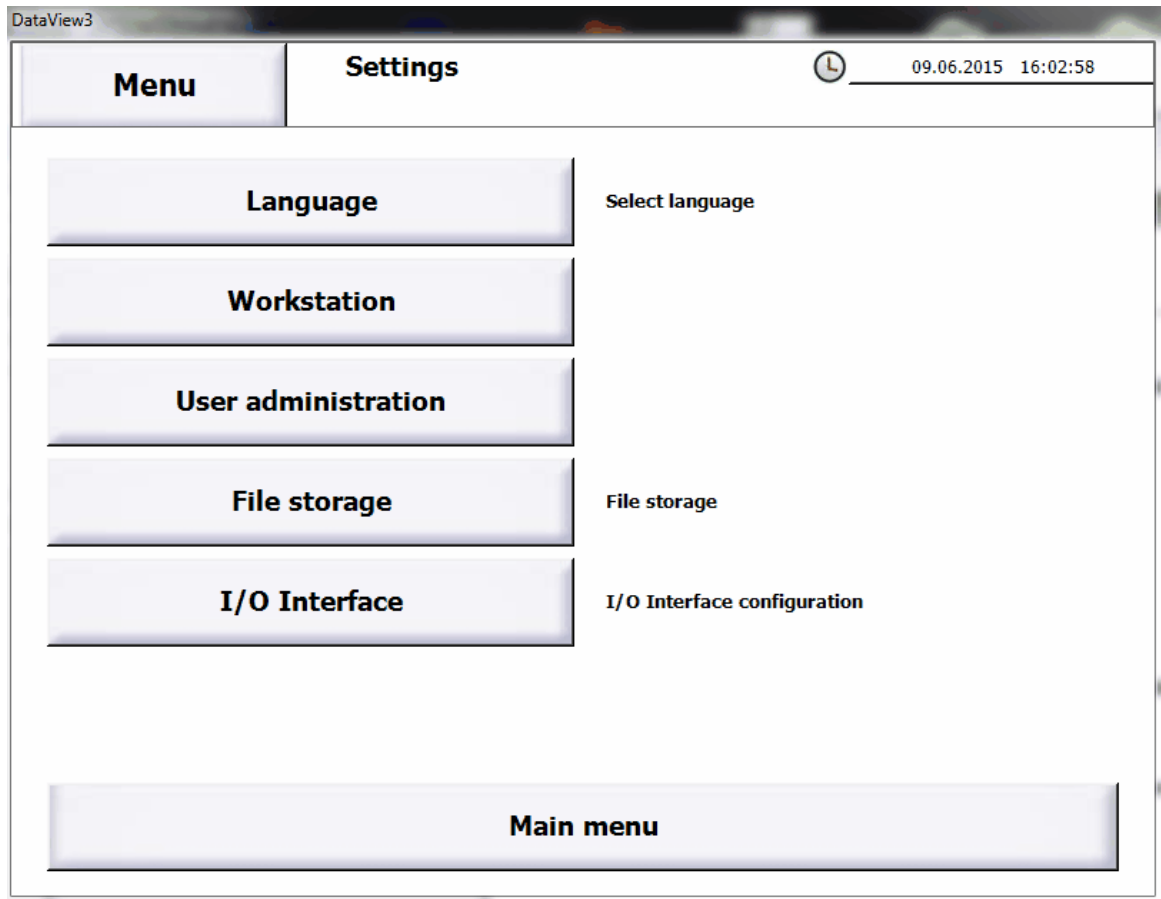
In **Windows Explorer** click on the icon **Network**. The mapped folders will be displayed.



2.2 Configuration

This chapter covers work to be done for configuring **ETL DataView 3**.

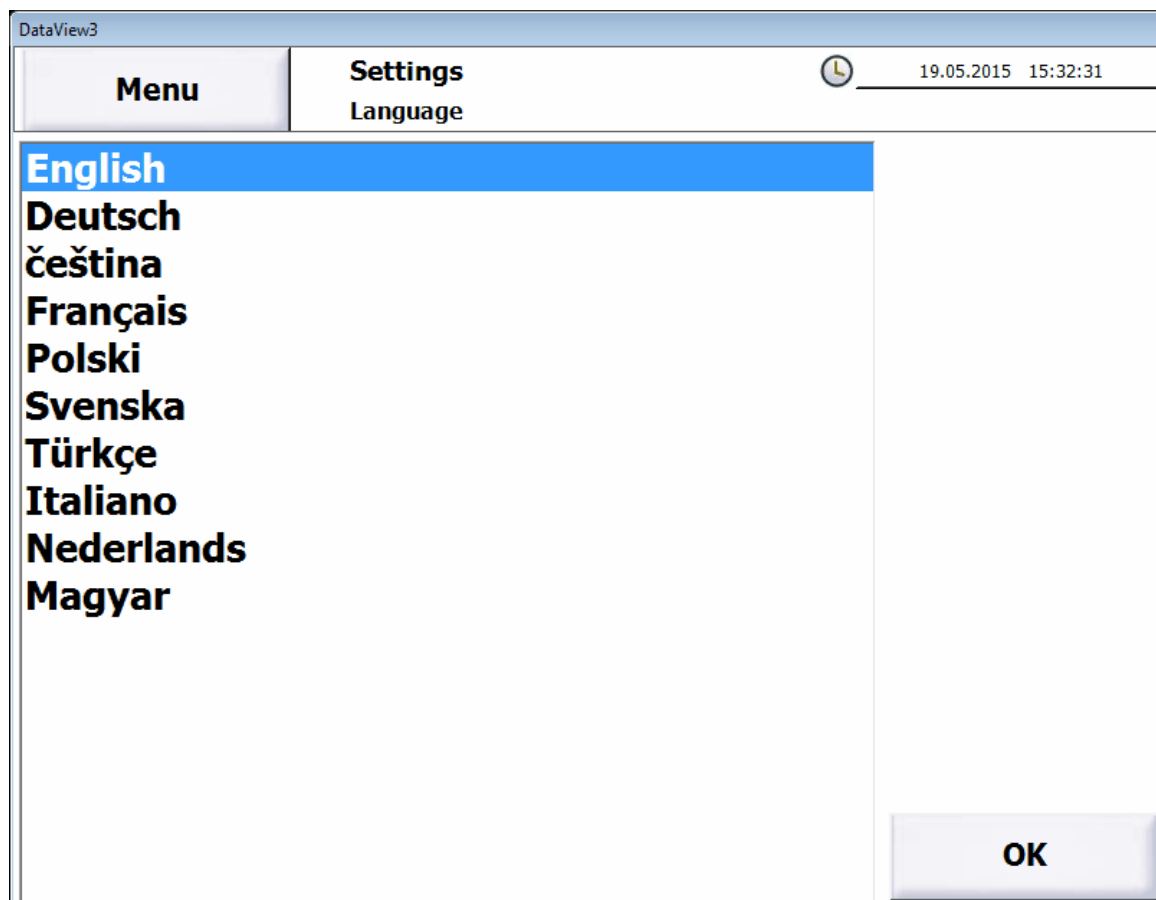
The most configuration work will be started from the main menu using the button **Settings**. The window **Settings** will be displayed from where you will reach the different areas.



Special configuration work is not supported by **ETL DataView 3** and must be done directly in the operating system. These are the [printserver configuration](#) and changes at the [dummy test plan](#).

2.2.1 Setting up language

Open the dialog choosing [Settings](#) -> [Language](#).

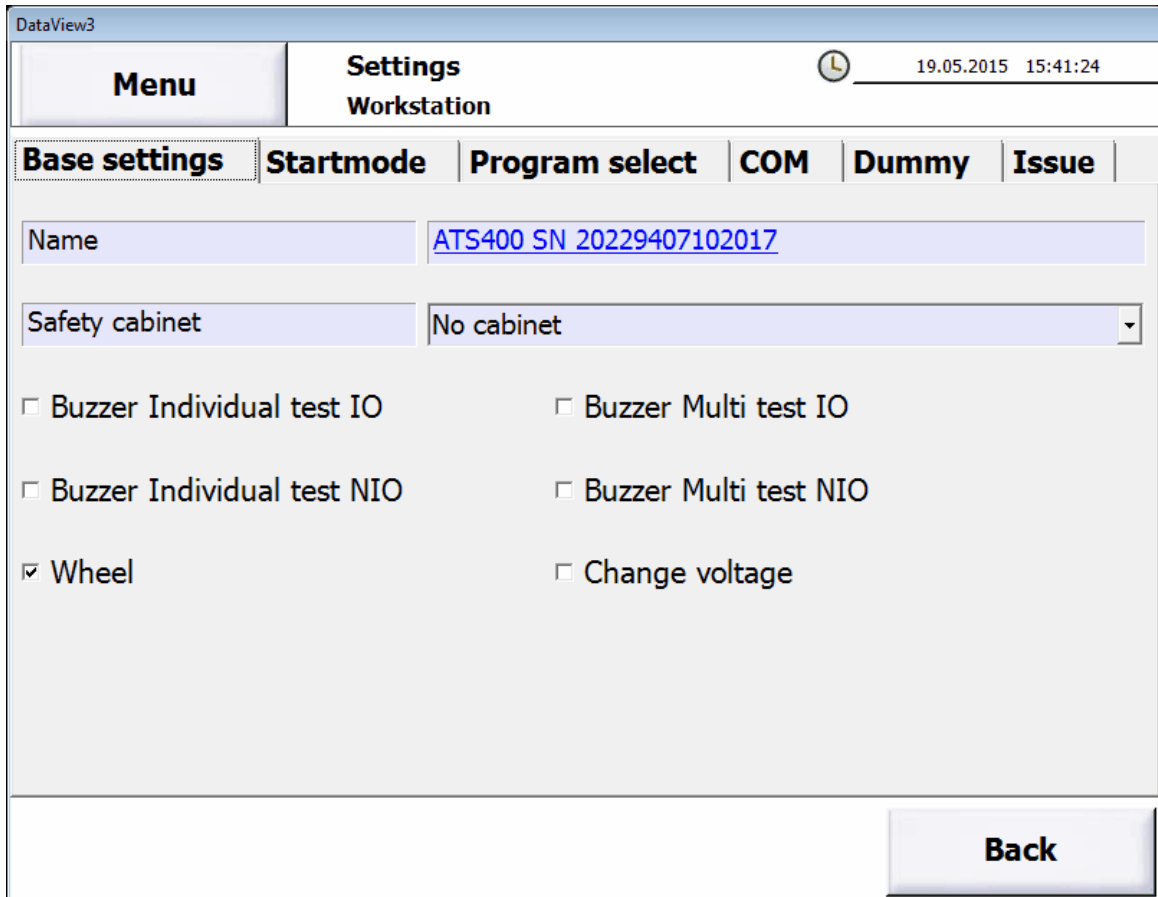


Select in the list the desired language. The language will be active immediately for most of the dialogs. This setting will be stored in file [Settings.conf](#).

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
OK	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.2 Naming the workstation

Open the dialog choosing [Settings](#) -> [Workstation](#) -> [Base settings](#).



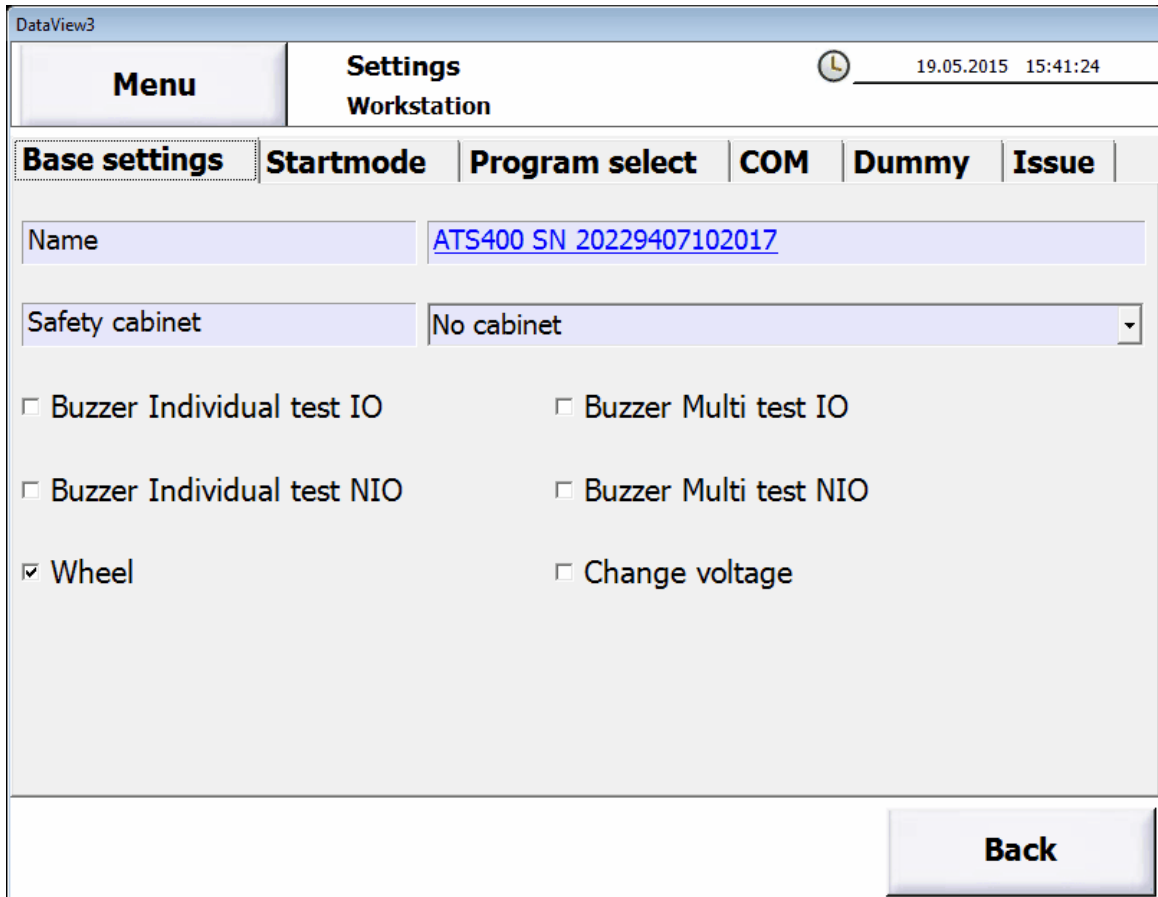
Click into the field right of [Name](#). A keyboard window will be opened. Enter the name of the workstation. The settings will be stored in the file [Settings.conf](#).

When [creating reports](#) you can access the field with the keyword [WORKSTATION](#).

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.3 Signal tones

Open the dialog choosing **Settings** -> **Workstation** -> **Base settings**.



The screenshot shows the 'Base settings' dialog box. It has a 'Menu' tab and a 'Settings Workstation' section. The 'Base settings' tab is selected, showing the following options:

- Name:** ATS400 SN 20229407102017
- Safety cabinet:** No cabinet
- ☐ Buzzer Individual test IO
- ☐ Buzzer Individual test NIO
- ☒ Wheel
- ☐ Buzzer Multi test IO
- ☐ Buzzer Multi test NIO
- ☐ Change voltage

A 'Back' button is located at the bottom right of the dialog.

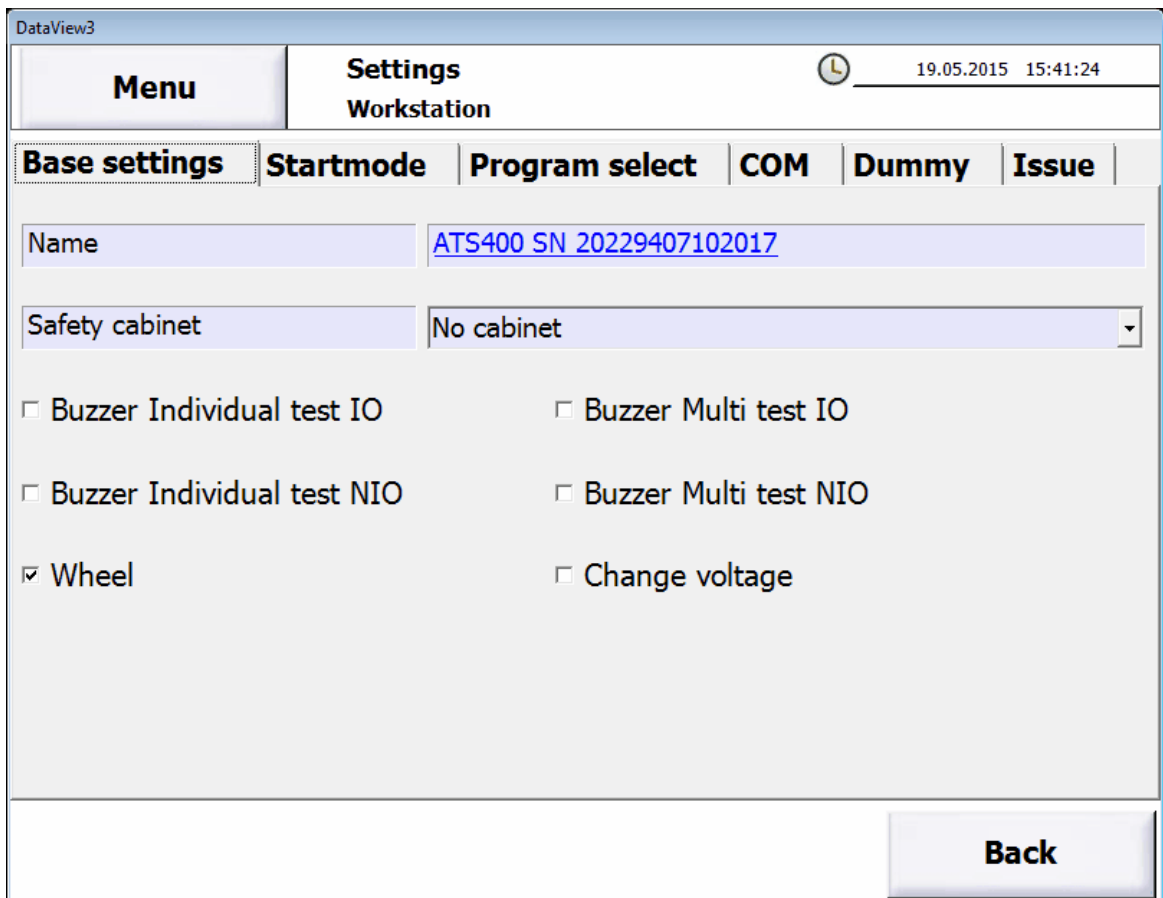
Additional to the signal tones generated for the overall result also signal tones can be given for each test step. The duration of the tone is according to the setting for the overall result. The settings will be stored in the file **Settings.conf**.

Selection	Behaviour
Buzzer Individual test IO	Is the result of a test step IO a signal tone is generated. This is independent from the fact of the test step is part of a multi test step or not.
Buzzer Individual test NIO	Is the result of a test step NIO a signal tone is generated. This is independent from the fact of the test step is part of a multi test step or not.
Buzzer Multi testIO	Is the result of a test step IO a signal tone is generated. This is done only when the test step is part of a multi test step.
Buzzer Multi test NIO	Is the result of a test step NIO a signal tone is generated. This is done only when the test step is part of a multi test step.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.4 Safety cabinet

Open the dialog choosing [Settings](#) -> [Workstation](#) -> [Base settings](#).



When using a safety cabinet you can choose several settings. To use this settings it is necessary to use a safety cabinet supporting the signals [IN OP](#) and [Locking](#) on the [ETL-Interfaces](#) of the [ATS400](#). The settings will be stored in the file [Settings.conf](#).

This setting applies to the workstation and is valid for all test plans.

Choose a value from the list [Safety cabinet](#). This will change the behaviour of the

signal **Out 6** on the **ETL-Interface**.

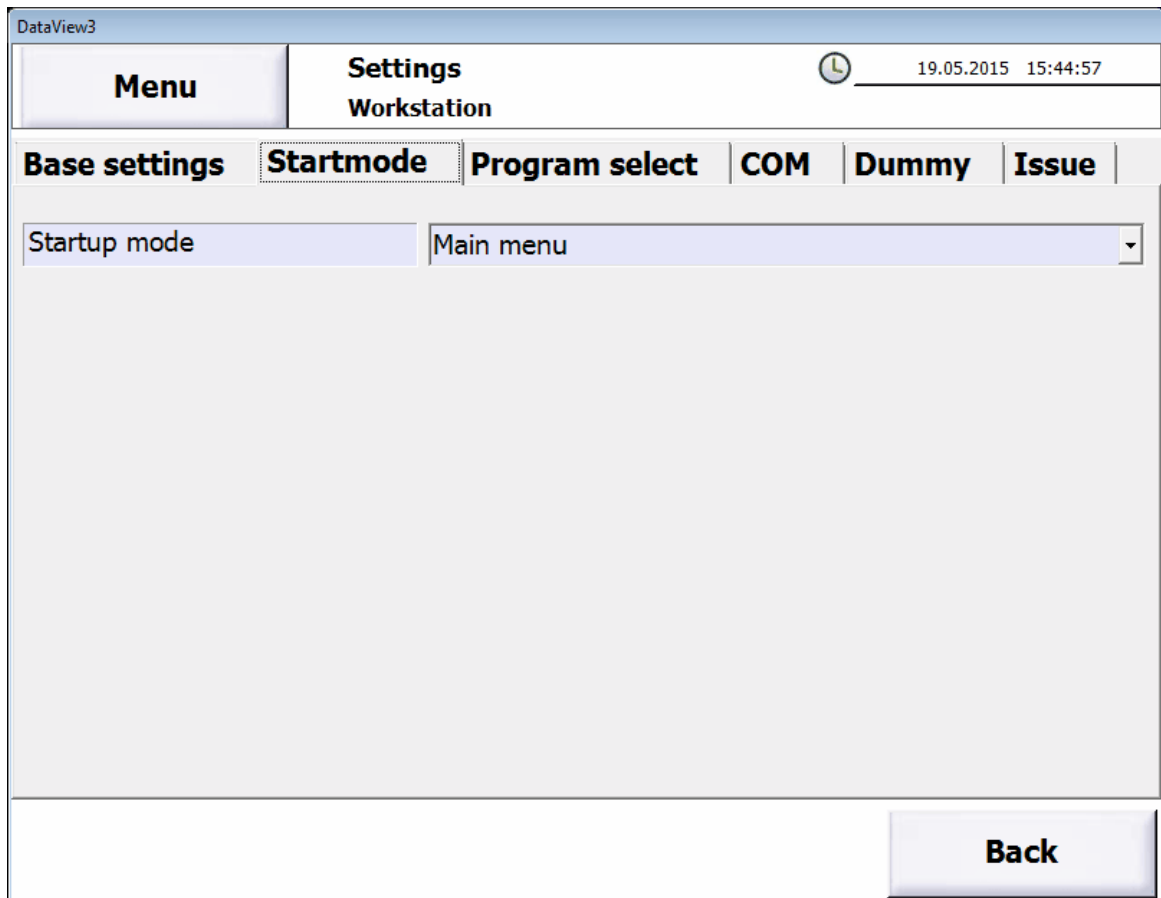
Selection	Behaviour
No cabinet	The output Out 6 has the meaning READY FOR OPERATION and behaves as described in the base device manual in chapter ETL-Interface for Selection and Operation Panels .
Locked during plan	The output Out 6 has the meaning Locking . The safety cabinet will not open as long as a test is running. After the test the safety cabinet can be opened independent from the overall result of the test.
Unlock on pass	The output Out 6 has the meaning Locking . The safety cabinet can not be opened as long as the overall result is not passed. Will the safety cabinet stay locked a message is displayed. You can unlock the safety cabinet with a button on the screen or the signal Button Stop on the ETL-Interface .

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.5 Startmode


You can define which window will be displayed after starting **ETL DataView 3**.

Open the dialog choosing **Settings** -> **Workstation** -> **Startmode**.



The screenshot shows the 'DataView3' window with the 'Settings' tab selected. Under the 'Workstation' sub-tab, the 'Startmode' section is active. It features a 'Startup mode' label and a dropdown menu currently showing 'Main menu'. A 'Back' button is located at the bottom right of the dialog.

Dependend from the selection in **Startup mode** additional controls may be displayed. These are labeld as **Individual Test** or as **Plan**. The settings will be stored in the file **Settings.conf**.



Important

Having [user administration](#) active all user should have the right to use the window configured as start up window.

Selection	Behaviour
Main menu	The main menu will be displayed.

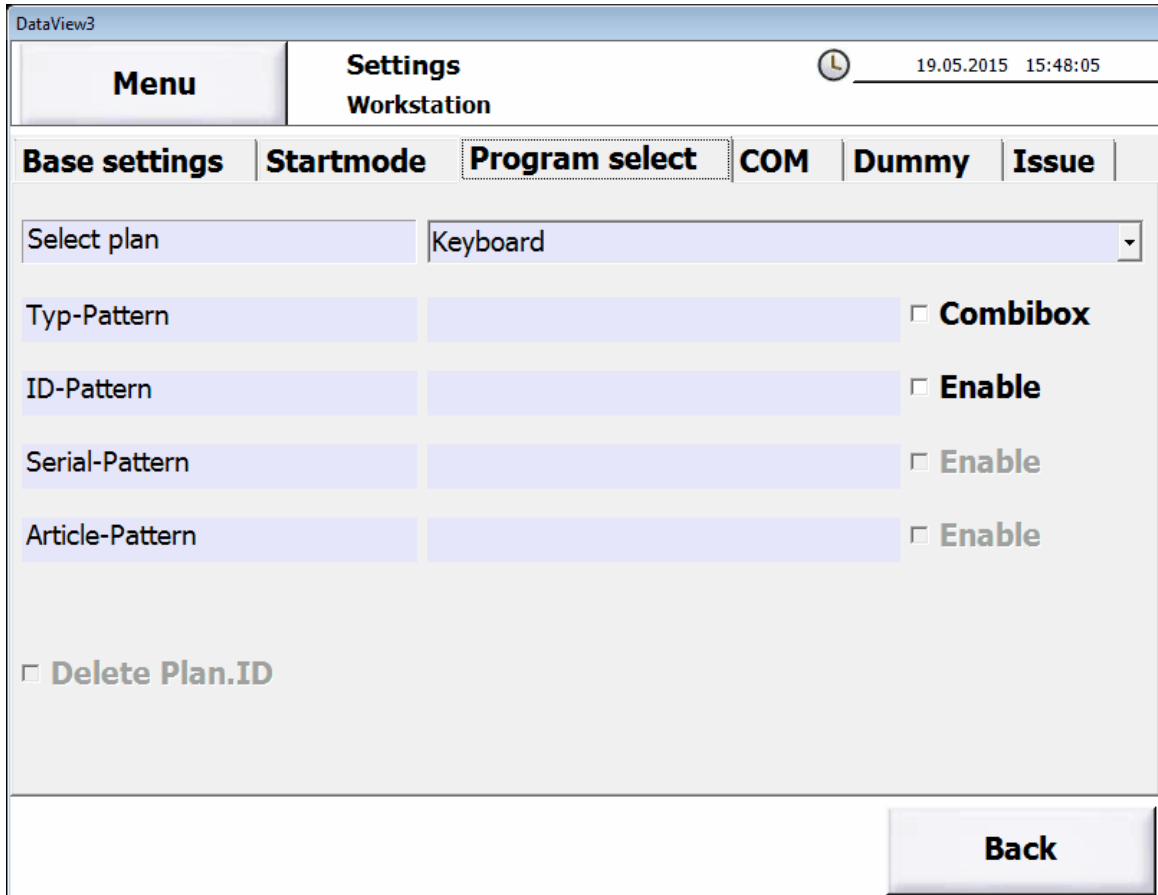
Selection	Behaviour
Select plan by ID	The window Select ID will be displayed.
Start in batch mode	The window Test batch will be displayed.
Select plan manually	The window Select manual will be displayed.
Individual test	Additionally the selection Individual Test will be displayed. You can select which test type will be started. You can only select enabled test types. The test will be started immediately after the start.
Menu individual test	The window Test individual will be displayed.
Plan	Additionally the selection Plan will be displayed. You can select one of the test plans. This test plan will be running immediately after the start. Will the test plan be renamed or deleted you get a message and the main menu will be displayed.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.6 Test plan selection

You can determine how to enter data during automatic test plan selection.

Open the dialog choosing **Settings** -> **Workstation** -> **Program select**.



Dependend from the selection in **Select plan** are the controls operational.

Parameter	Description
Select plan	<p>With the drop down box you can choose from which source the selection will be taken.</p> <div> <p>ETL-Interface: The test plan will be selected by applying a number at the ETL-Interface and active the acquisition. Details are described in the base device manual.</p> <p>Keyboard: The window Select ID will be displayed. Into this window a ID will be entered which is used to select the test plan.</p> <p>File Plan.ID: A file with the name Plan.ID must be created in the plans folder. This file contains a line with the ID which is used to</p> </div>

Parameter	Description
	select a test plan. Optional in a second line a serial number and in a third line a article description can be given. The contents of the file will be periodically checked.
Typ-Pattern	In this field the pattern which is used to test the entered data using automatic test plan selection is entered. This pattern must be meet to have a valid entered data. The entered data will be in the result file as tag TYPE . The field is operational when in Select plan the value Keyboard is choosen. With the other values the field is unaccessible.
Combibox	This check box indicates that the field Typ-Pattern contains two parts. When Combibox is active the fields ID-Pattern and Serial-Pattern are getting operational, the check boxes Enable will both be activated and disabled. The checkbox is operational when in Select plan the value Keyboard is choosen. With the other values the field is unaccessible.
ID-Pattern	In this field the pattern which is used to extract the type from the entered data is entered. The extracted value will be in the result file as tag USEDID . The field is operational when in Select plan the value Keyboard is choosen and the corresponding checkbox Enable is active. With the other values the field is unaccessible.
Enable (at ID-Pattern)	This check box indicates that the entrance contains a type. The checkbox is operational when in Select plan the value Keyboard is choosen and the checkbox Combibox is not active. With the other values the field is unaccessible.
Serial-Pattern	In this field the pattern which is used to extract a serial number is entered. The extracted value will be in the result file as tag SERIALNUMBER . The field is operational when in Select plan the value Keyboard is choosen and the corresponding checkbox Enable is active. With the other values the field is unaccessible.
Enable (at Serial-Pattern)	This check box indicates that the entrance contains a serial number. The checkbox is operational when in Select plan the value Keyboard is choosen, the

Parameter	Description
	checkbox Combibox is not active and the checkbox Enable (at ID-Pattern) is active. With the other values the field is unaccessible.
Article-Pattern	In this field the pattern which is used to extract additional article data is entered. The extracted value will be in the result file as tag ARTICLE . The field is operational when in Select plan the value Keyboard is chosen and the corresponding checkbox Enable is active. With the other values the field is unaccessible.
Enable (at Article-Pattern)	This check box indicates that the entrance contains additional article data. The checkbox is operational when in Select plan the value keyboard is chosen and the checkbox Enable (at Serial-Pattern) is active. With the other values the field is unaccessible.
Delete Plan.ID	Is this check box active the file will be deleted after it has been processed. The checkbox is operational when in Select plan the value File Plan.ID is chosen. With the other values the field is unaccessible.

Details how to enter pattern are in topic [Patterns](#).

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.6.1 Examples

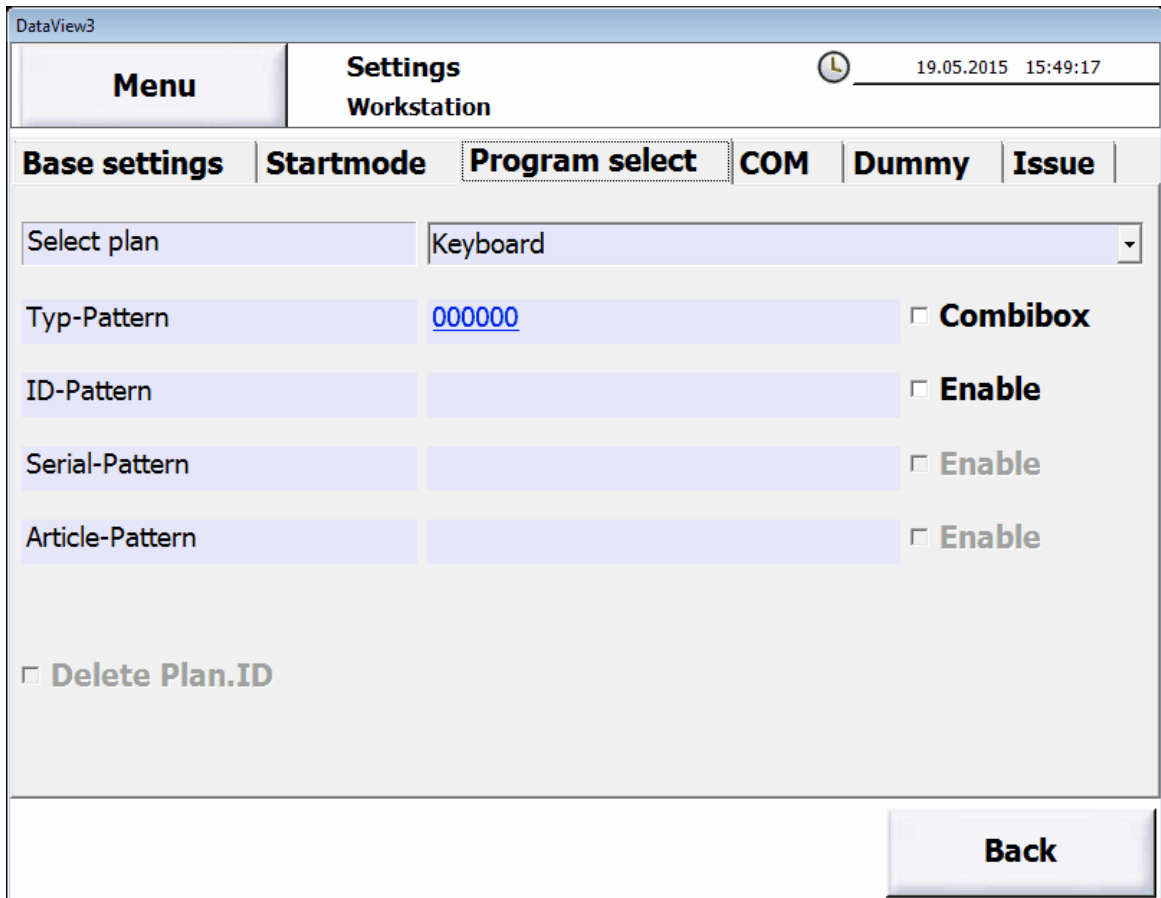
The following examples shows possible settings at hand of the number scheme used by **ETL Prüftechnik**. This scheme consist of a article number with 6 ciphers followed by a blank and the serial number. The serial number consists of 4 ciphers for the production month a blank and 4 ciphers for a number. This leads to following pattern: 000000\ 0000\ 0000

An example number is *205589 0515 1000*. The corresponding article description is *UGP-5025*.

Other examples will show additional possibilities.

2.2.6.1.1 Article number

Should for automatic test plan selection only the article number be used the pattern has to be given in field **Typ-Pattern**. The check boxes remain inactive and the other fields remain empty.



DataView3

Menu **Settings** 19.05.2015 15:49:17
Workstation

Base settings **Startmode** **Program select** **COM** **Dummy** **Issue**

Select plan Keyboard

Typ-Pattern 000000 ☐ **Combibox**

ID-Pattern ☐ **Enable**

Serial-Pattern ☐ **Enable**

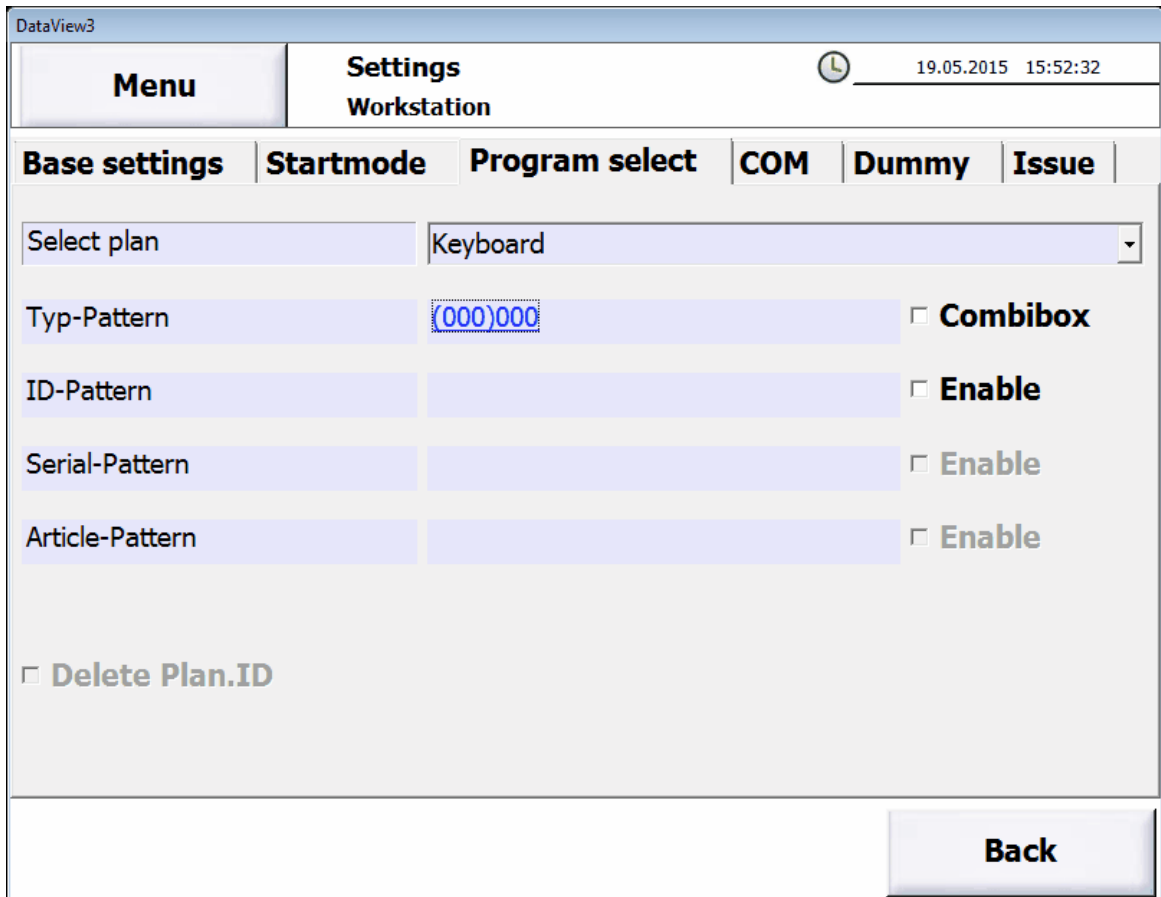
Article-Pattern ☐ **Enable**

☐ **Delete Plan.ID**

Back

2.2.6.1.2 Article groups

Should for automatic test plan selection only the article number be used the pattern has to be given in field **Typ-Pattern**. The check boxes remain inactive and the other fields remain empty. The pattern must be entered that the characters for the group are included in paranthesis. In the test plan only the article group ist entered for the identification.



DataView3

Menu **Settings** 19.05.2015 15:52:32
Workstation

Base settings **Startmode** **Program select** **COM** **Dummy** **Issue**

Select plan Keyboard

Typ-Pattern (000)000 ☐ **Combibox**

ID-Pattern ☐ **Enable**

Serial-Pattern ☐ **Enable**

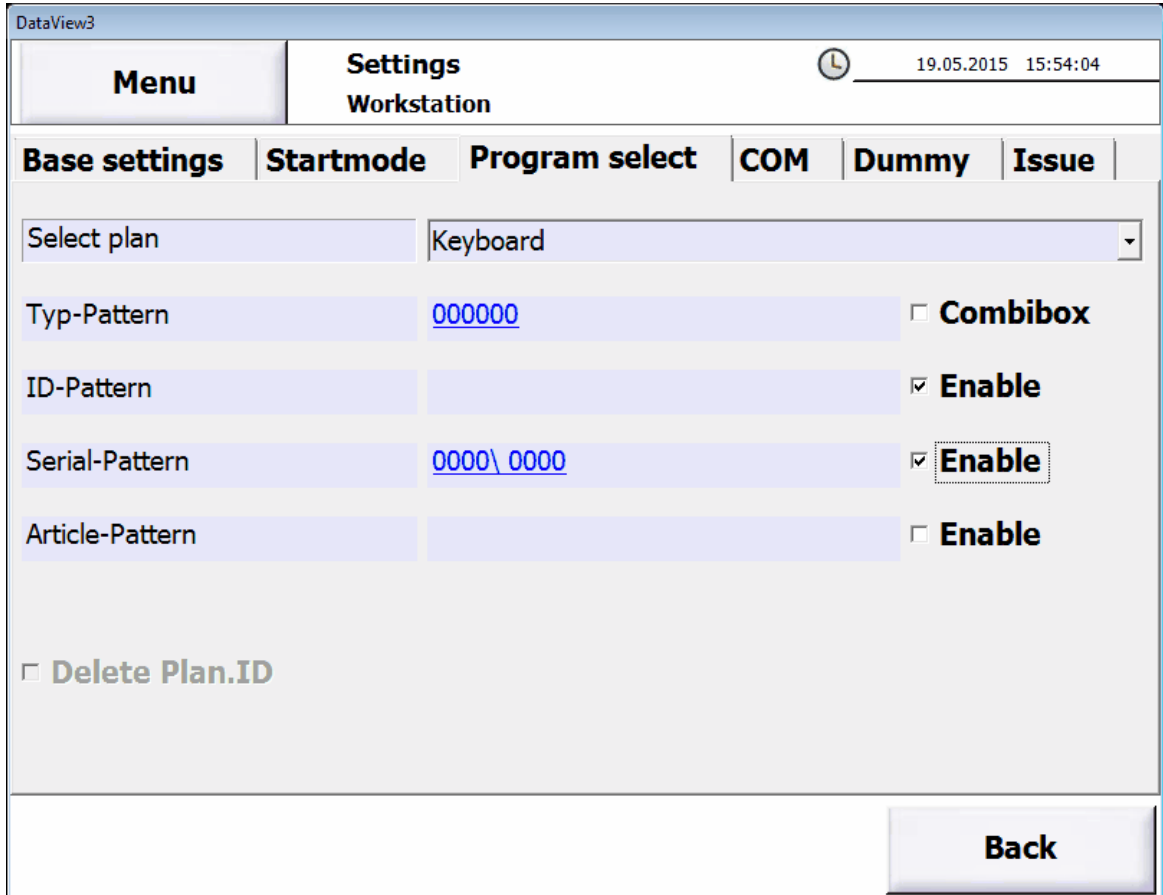
Article-Pattern ☐ **Enable**

☐ **Delete Plan.ID**

Back

2.2.6.1.3 Article- and serial number

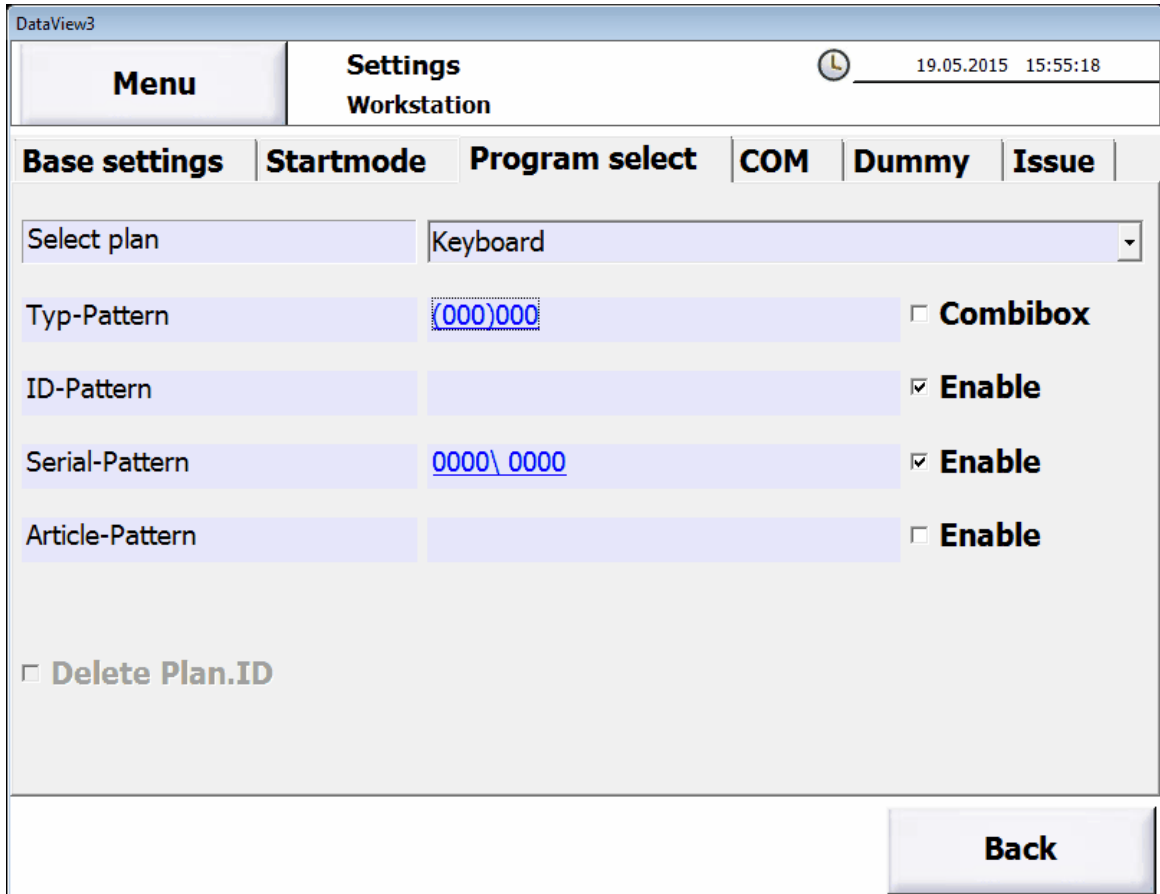
Should for automatic test plan selection the article number and the serial number in separate fields be entered both check boxes for **ID-Pattern** and **Serial-Pattern** must be activated. In the fields **Typ-Pattern** and **Serial-Pattern** the patterns are entered. There is no need to enter something in **ID-Pattern** because this pattern is identical with the pattern in **Typ-Pattern**. The check box **Combibox** remains inactive.



Menu		Settings Workstation	19.05.2015 15:54:04		
Base settings	Startmode	Program select	COM	Dummy	Issue
Select plan	Keyboard				
Typ-Pattern	000000			<input type="checkbox"/> Combibox	
ID-Pattern				<input checked="" type="checkbox"/> Enable	
Serial-Pattern	0000\ 0000			<input checked="" type="checkbox"/> Enable	
Article-Pattern				<input type="checkbox"/> Enable	
<input type="checkbox"/> Delete Plan.ID					
Back					

2.2.6.1.4 Article groups and serial number

Should for automatic test plan selection the article number and the serial number in separate fields be entered both check boxes for **ID-Pattern** and **Serial-Pattern** must be activated. In the fields **Typ-Pattern** and **Serial-Pattern** the patterns are entered. The pattern must be entered that the characters for the group are included in paranthesis. In the test plan only the article group ist entered for the identification. There is no need to enter something in **ID-Pattern** because this pattern is identical with the pattern in **Typ-Pattern**. The check box **Combibox** remains inactive.



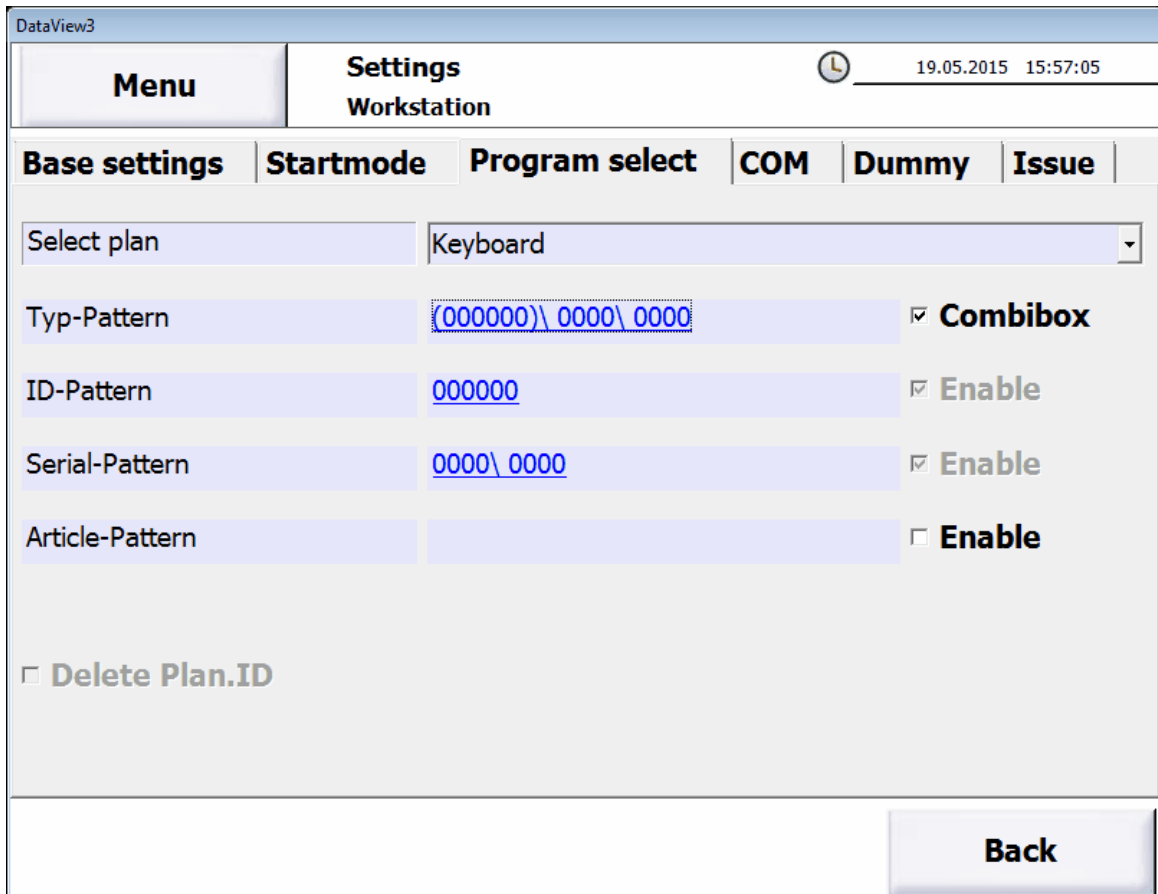
The screenshot shows the 'DataView3' application window with the 'Settings Workstation' tab selected. The window has a menu bar with 'Menu', 'Settings', and 'Workstation'. Below the menu bar, there are tabs for 'Base settings', 'Startmode', 'Program select', 'COM', 'Dummy', and 'Issue'. The 'Base settings' tab is active, displaying several configuration fields and checkboxes.

Field	Value	Checkbox	Label
Select plan	Keyboard		
Typ-Pattern	(000)000	<input type="checkbox"/>	Combibox
ID-Pattern		<input checked="" type="checkbox"/>	Enable
Serial-Pattern	0000\ 0000	<input checked="" type="checkbox"/>	Enable
Article-Pattern		<input type="checkbox"/>	Enable
<input type="checkbox"/> Delete Plan.ID			

A 'Back' button is located at the bottom right of the window.

2.2.6.1.5 Combined entrance

Should for automatic test plan selection the article number and the serial number in a common field be entered the check box **Combibox** has to be activated and in all fields an entry has to be made for the patterns. The pattern in field **Typ-Pattern** must be entered that the characters for the article number are include in paranthesis. The sequence of the fields is fixed first the article number and then the serial number. The setting look like shown below.



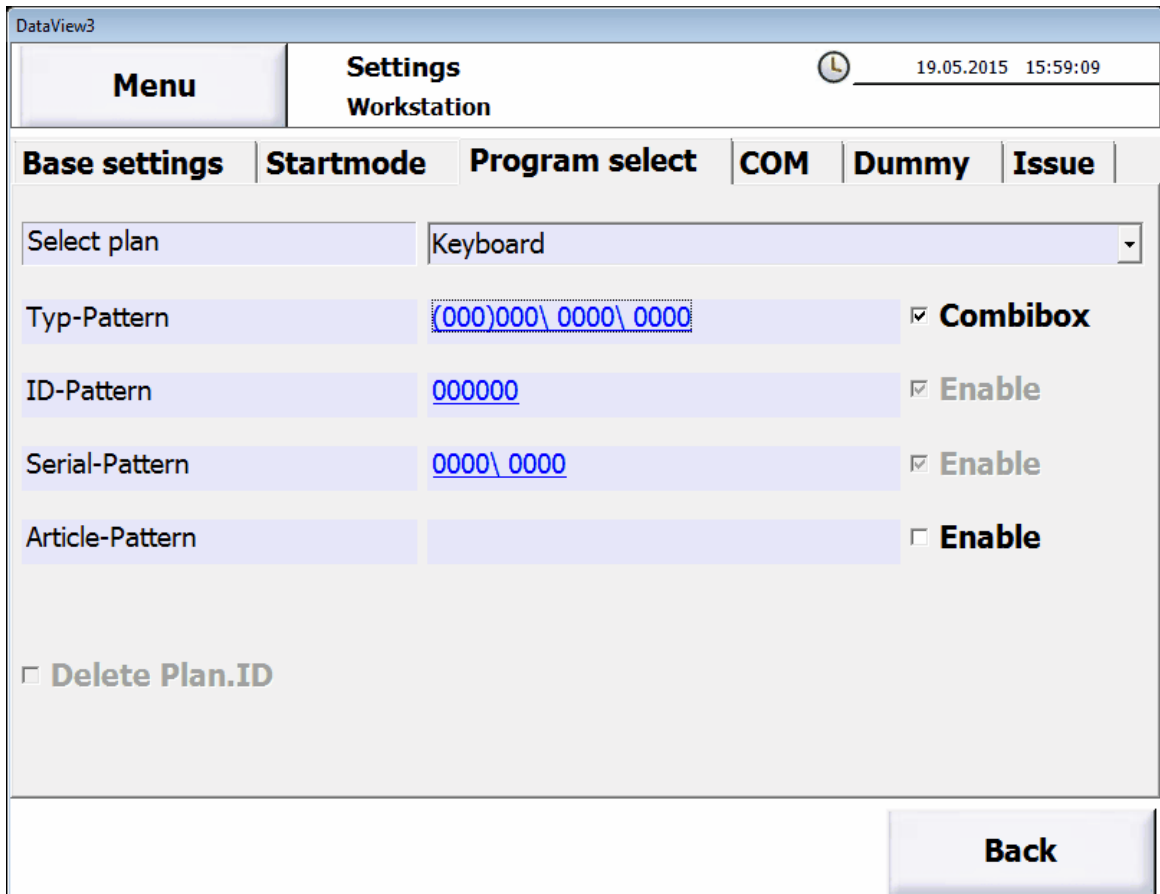
The screenshot shows the 'DataView3' application window with the 'Settings Workstation' tab selected. The 'Base settings' sub-tab is active. The interface includes a 'Menu' button, a clock showing '19.05.2015 15:57:05', and several tabs: 'Base settings', 'Startmode', 'Program select', 'COM', 'Dummy', and 'Issue'. The 'Base settings' tab contains the following fields and options:

Field	Value	Option
Select plan	Keyboard	
Typ-Pattern	(000000)\ 0000\ 0000	<input checked="" type="checkbox"/> Combibox
ID-Pattern	000000	<input checked="" type="checkbox"/> Enable
Serial-Pattern	0000\ 0000	<input checked="" type="checkbox"/> Enable
Article-Pattern		<input type="checkbox"/> Enable
<input type="checkbox"/> Delete Plan.ID		

A 'Back' button is located at the bottom right of the window.

2.2.6.1.6 Combined entrance with article groups

Should for automatic test plan selection the article number and the serial number in a common field be entered the check box **Combibox** has to be activated and in all fields an entry has to be made for the patterns. The pattern in field **Typ-Pattern** must be entered that the characters for the group are included in paranthesis. The sequence of the fields is fixed first the article number and then the serial number. The setting looks like shown below.



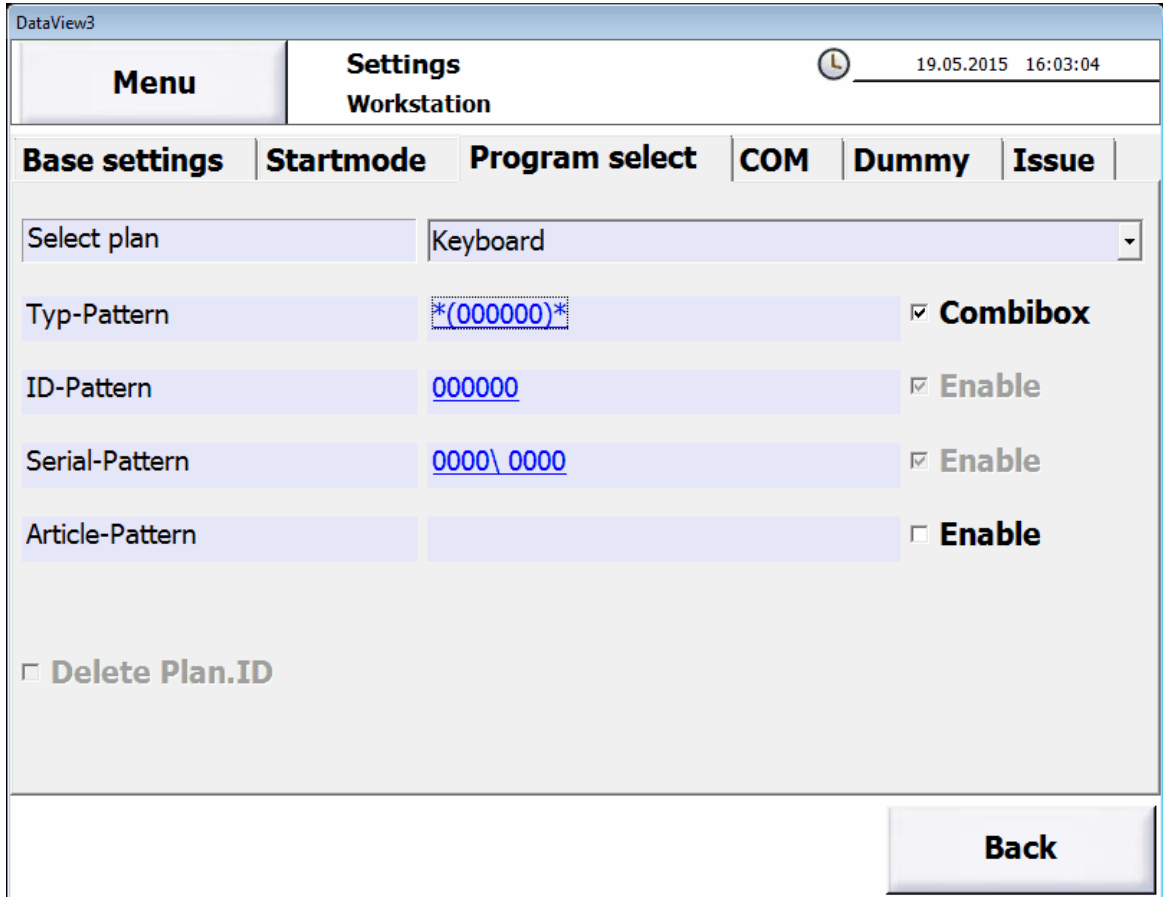
The screenshot shows the 'DataView3' application window with the 'Settings Workstation' tab selected. The 'Base settings' sub-tab is active. The interface includes a top navigation bar with 'Menu' and 'Settings Workstation' (with a clock icon and timestamp '19.05.2015 15:59:09'). Below this is a tabbed interface with 'Base settings', 'Startmode', 'Program select', 'COM', 'Dummy', and 'Issue'. The 'Base settings' tab contains the following fields and options:

Field	Value	Option
Select plan	Keyboard	
Typ-Pattern	(000)000\ 0000\ 0000	<input checked="" type="checkbox"/> Combibox
ID-Pattern	000000	<input checked="" type="checkbox"/> Enable
Serial-Pattern	0000\ 0000	<input checked="" type="checkbox"/> Enable
Article-Pattern		<input type="checkbox"/> Enable

At the bottom of the settings area, there is a checkbox labeled ☐ **Delete Plan.ID**. A 'Back' button is located at the bottom right of the window.

2.2.6.1.7 Variable sequence in one field

Is the sequence of the fields undetermined so the fields must be separated by a character. The pattern for the type and the serial number must be different. Otherwise the fields cannot be separated. In this case the setting looks like shown below.



DataView3

Menu Settings 19.05.2015 16:03:04

Workstation

Base settings Startmode Program select COM Dummy Issue

Select plan Keyboard

Typ-Pattern * (000000) * ☒ Combibox

ID-Pattern 000000 ☒ Enable

Serial-Pattern 0000 \ 0000 ☒ Enable

Article-Pattern ☐ Enable

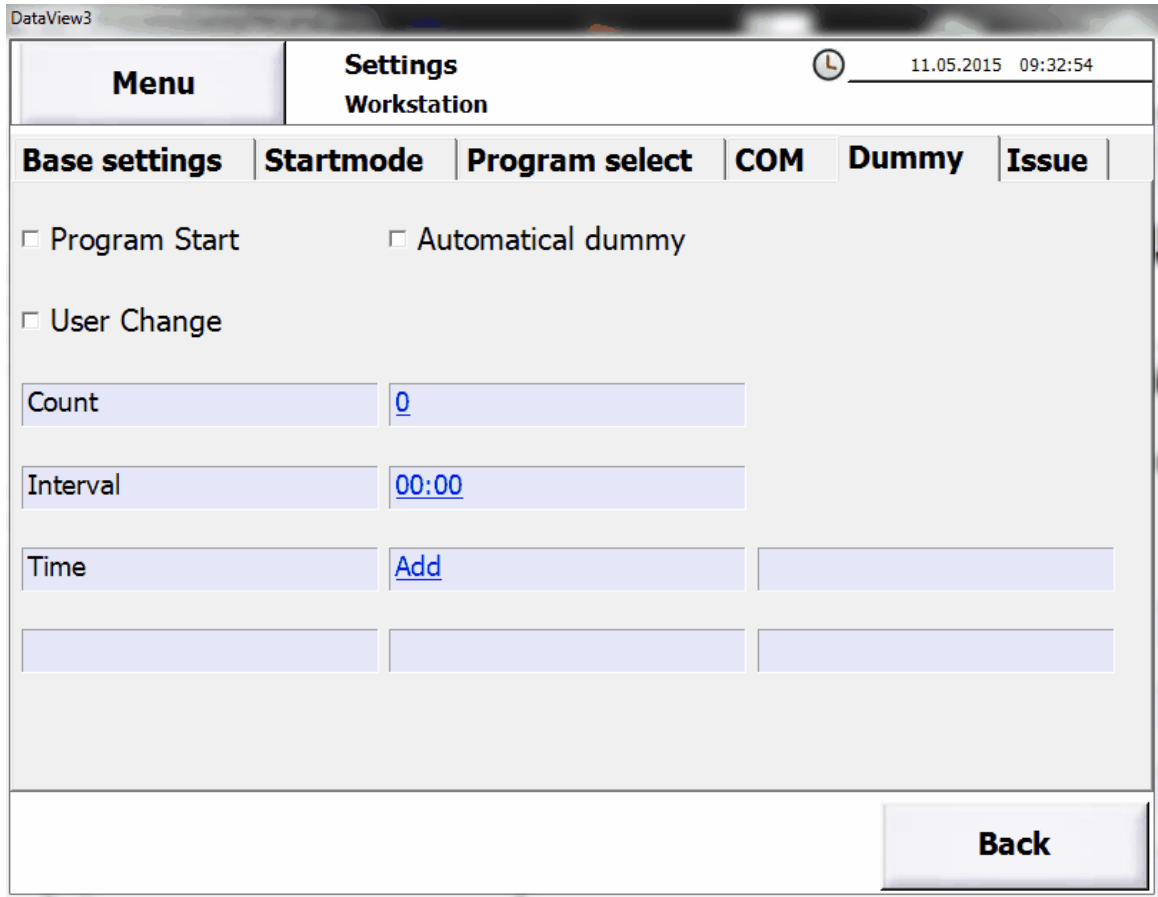
☐ Delete Plan.ID

Back

2.2.7 Dummy test

These settings must be done if you want to check the **ATS400** and the test station for functionality.

Open the Dialog using **Settings** -> **Workstation** -> **Dummy**.



The screenshot shows the 'Dummy' settings dialog. The 'Menu' tab is selected, and the 'Settings Workstation' section is visible. The 'Dummy' sub-tab is active, showing the following options:

- ☐ Program Start
- ☐ Automatical dummy
- ☐ User Change

Below the checkboxes are three input fields:

- Count:** 0
- Interval:** 00:00
- Time:** Add


A 'Back' button is located at the bottom right of the dialog.

Parameter	Description
Program Start	The dummy test will be done when the program starts.
User Change	The dummy test will be done after a user logs in.
Count	The dummy test will be done after the given number of tests. When opening a test plan or changing it the counter will be reset to 0.
Interval	Time interval between two dummy tests. Checking for the end of the interval will be done when waiting for the start condition of the test step or when waiting for the identification of the unit under test. The interval starts after a

Parameter	Description
	successfull dummy test.
Time	Up to 5 points in time can be defined when a dummy test will be performed. Checking for the time will be done when waiting for the start condition of the test step or when waiting for the identification of the unit under test. The times will be repeated for each day.
Automatical dummy	This checkbox must be set when an automatic dummy will be used.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

Any combination can be configured despite of such a setting makes sense.



Important

The name of the result file and the report files are according to the same rules as with normal test plans.

Will in the file name not choose to use DateTime only the last dummy test will be recorded. Will the dummy test be executed after a certain amount of tests the result file and the report of the last test will be overwritten.

Will by creating the folder name a preset keyword or a keyword from the test type [Data input](#) be used invalid folder names may arise when they should be stored in subfolders.

Will [Program Start](#) be used together with [Time](#) the following rule applies:
The dummy test of the next point in time in the future will not be executed.
Example:

The points in time 8:00 and 16:00 are configured. The successfull dummy test when starting the program was at 7:55. Therefore the dummy test at 8:00 will not be executed. The next dummy test will be at 16:00.

Will [Program Start](#) be used together with [User Change](#) then after the start of the program and logging in of the user the dummy test will be executed only once.

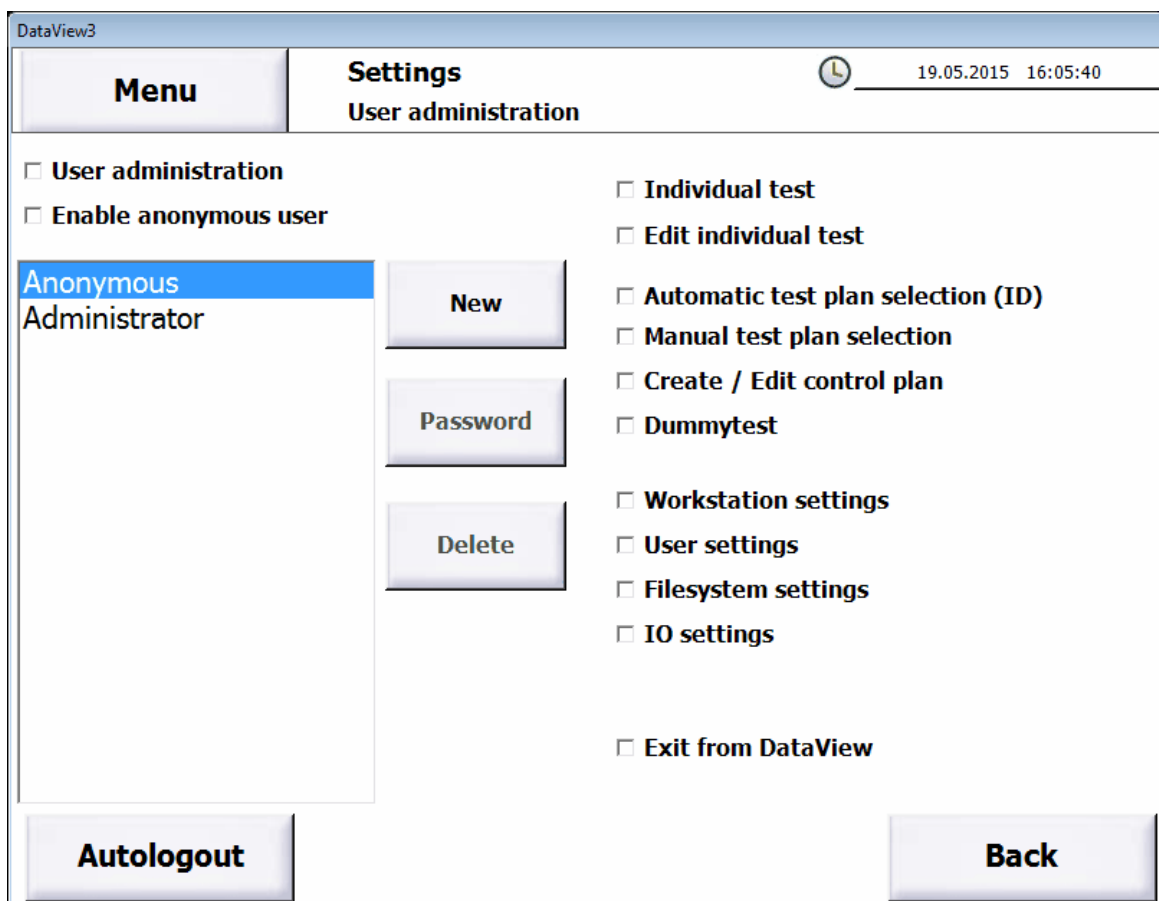
Following settings are recommended if no other rules apply:

Scenario	Setting
Laboratory use or single shift Device will be powerd off.	Select Programm Start .
Two shifts without user administration Device will be powerd off	Select Program Start and two times when the shifts begin.
Multiple shifts with user administration	Select User Change .
Different Windows user	Select Programm Start .

2.2.8 User administration

With the user administration you can limit the possibilities of the users in **ETL DataView 3**.

Open the dialog choosing **Settings** -> **User administration**.



DataView3

Menu **Settings** 19.05.2015 16:05:40

User administration

☐ User administration

☐ Enable anonymous user

Anonymous Administrator

New

Password

Delete

☐ Individual test

☐ Edit individual test

☐ Automatic test plan selection (ID)

☐ Manual test plan selection

☐ Create / Edit control plan

☐ Dummytest

☐ Workstation settings

☐ User settings

☐ Filesystem settings

☐ IO settings

☐ Exit from DataView

Autologout Back

The settings will be stored in the file **User.conf**.

The user *ADMIN* holds all rights as default. This user cannot be deleted. This user is provided to get access to the system without help from **ETL Prüftechnik** in the case the password has been forgotten. The factory default password for *ADMIN* is *ETL*. This can be changed but it is recommended to keep it.

The user *ETLSERVICE* is fixed programmed and has the password *BOGERVIEW*. This user hold all rights.

The user *Anonymous* holds no rights as default. This user cannot be deleted. This user allows to log in without displaying a login dialog



Important

As factory default the anonymous user has no rights. He cannot run a test, make settings or exit **ETL DataView 3**. This should be taken into consideration when choosing the [startup mode](#).

You can access the name of the logged in user within a [report](#) with the keyword [TESTER](#). When you will use the user name as part of a file name for result- or reportfiles you must insert a step of test type [Batch](#) and choose when [configuring the file name](#) as field **Tag** and use the value **Benutzer**.

Parameter	Description
User administration	This check box determines if you have user administration active. Is the check box active user administration is also active.
Enable anonymous user	This check box determines if a user must log in. Is this check box active the user <i>Anonymous</i> will be logged in automatically.
List of rights	In the list of rights you can specify which rights a user has.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
New	A new user will be created.
Password	The password for the selected user will be changed.
Delete	The selected user will be deleted .
Autologout	Opens the window for the settings for automatical logout .

Button	Action
Back	The changes will be stored and the window will be closed. Das Fenster Einstellungen wird wieder angezeigt.

2.2.8.1 Add an new user

Click on the button [New](#) to create an new user.

A new windows is opened to enter the user name. leaving with [OK](#) the user will be created and he will be added to the list.

The user name and the password are case sensitive.

2.2.8.2 Enter password

Select the user in the list and click on the button [Password](#) to add or change the password.

The user name and the password are case sensitive.


The password is encrypted an cannot be restored.

2.2.8.3 Delete user

Select the user in the list. Click on the button [Delete](#). A confirmation dialog is displayed. If you confirm the user will be deleted.

2.2.8.4 Assign rights

Select the user in the list. Activate or unactivate the check boxes on the right side to allow or deny the desired rights.



Important

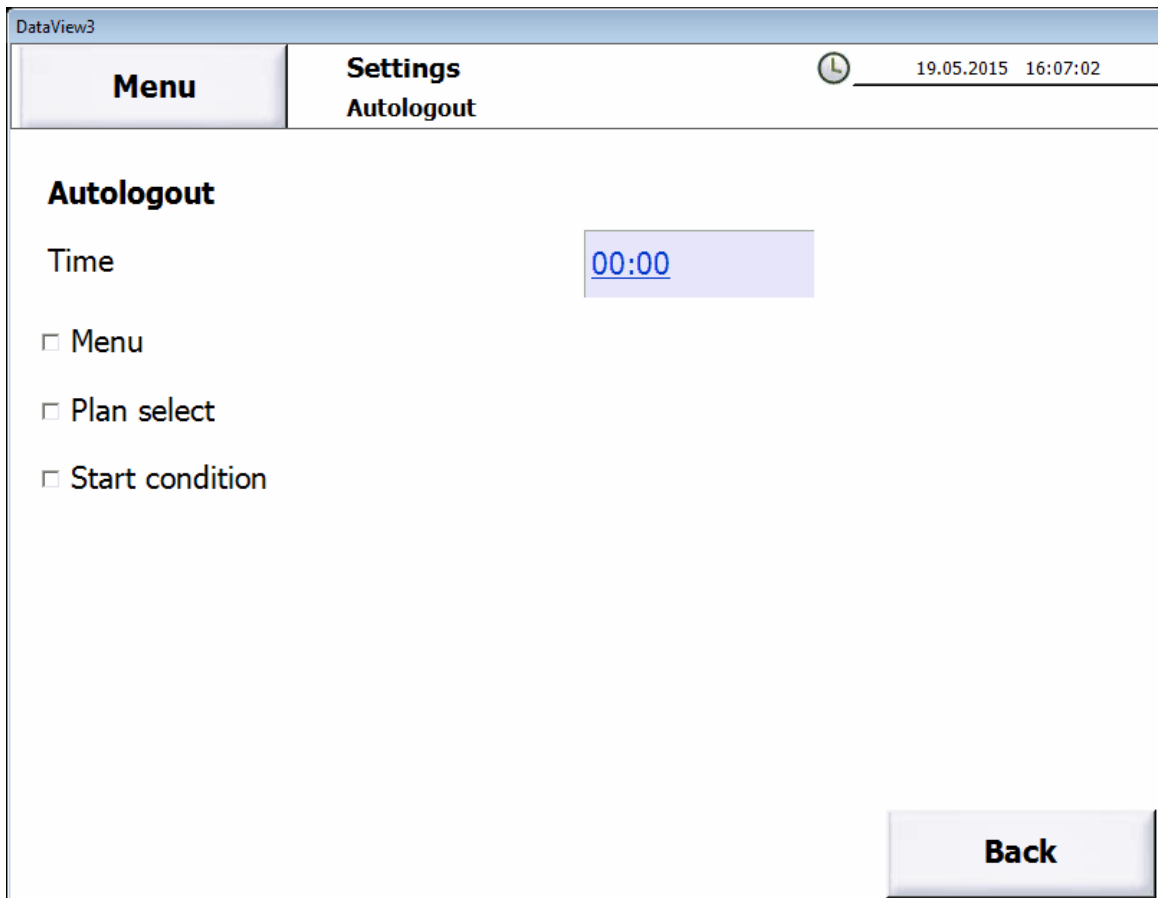
Be carefull to give all users the right to use the window defined in [Startup mode](#).

Parameter	Description
Individual test	The user is allowed to do a single step test .
Edit Individual test	The user is allowed to change the parameters of an individual test.
Automatic test plan selection (ID)	The user is allowed to use automatic test plan selection .

Parameter	Description
Manual test plan selection	The user is allowed to use manual test plan selection.
Create / Edit control plan	The user is allowed to create and edit test plans .
Dummytest	The user is allowed to run a dummy test.
Workstation settings	The user is allowed to change the settings of the workstation.
User settings	The user is allowed to change the user administration .
Filesystem settings	The user is allowed to change the settings for file storage .
IO settings	The user is allowed to change the settings in the I/O-Interface. The settings are described in the base device manual.
Exit from DataView	The user is allowed to exit ETL DataView 3 and goes back to the Windows desktop.

2.2.8.5 Automatic logout

Open the dialog with the button [Autologout](#).



In this dialog the rules are configured a user will be logged out automatically.

Selection	Behaviour
Time	Determines the time interval the user is logged off.
Menu	The time intervall is active when the user is in a menu window. All menus and windows reached via button Settings are not considered.
Plan select	The time intervallis active when the user is in a window for test plan selection.
Start condition	The time intervall is active when waiting to read the start conditions of the first step in a running test plan.

2.2.9 File storage

In this menu you can setup additional to the storage places for [result files](#) and [test plans](#) also the [network settings](#). Furthermore [temporary options](#) for storage of result files experiencing problems with the storage media and [release](#) storage place on the internal storage media.

Open the dialog choosing [Settings](#) -> [File storage](#).


2.2.9.1 Result files

Open the dialog choosing [Settings](#) -> [File storage](#) -> [Result](#).

On the property page [Storage](#) you can define which test results will be saved and on which storage media they will be stored.

On the property page [Path](#) you can define rules for creating folders.

On the property page [Filename](#) you can define the name of the result und report files.



Important

The number of creatable files is with the variants X4 and X5 limited through the constrains of [Windows CE](#).

Due to the system [Windows CE](#) can create on storage media formatted with FAT32, like USB-storage media, especially memory sticks, only 999 file per folder. This also belongs to the built in SD-Card. Although long files names are displayed file must have a 8.3 name on Storage media with file system FAT32. [Windows CE](#) creates a file name preserving the first 4 characters. The next chracter is always ,~` and will be followed by three ciphers. Creating the file names for the result files as set factory default you will get the following files:

Long file name	Short file name
ETLTest_20111207-123233_1_IO.result	ETLT~001.res
ETLTest_20111207-123445_2_IO.result	ETLT~002.res
ETLTest_20111207-123622_3_IO.result	ETLT~003.res
ETLTest_20111207-123905_4_IO.result	ETLT~004.res

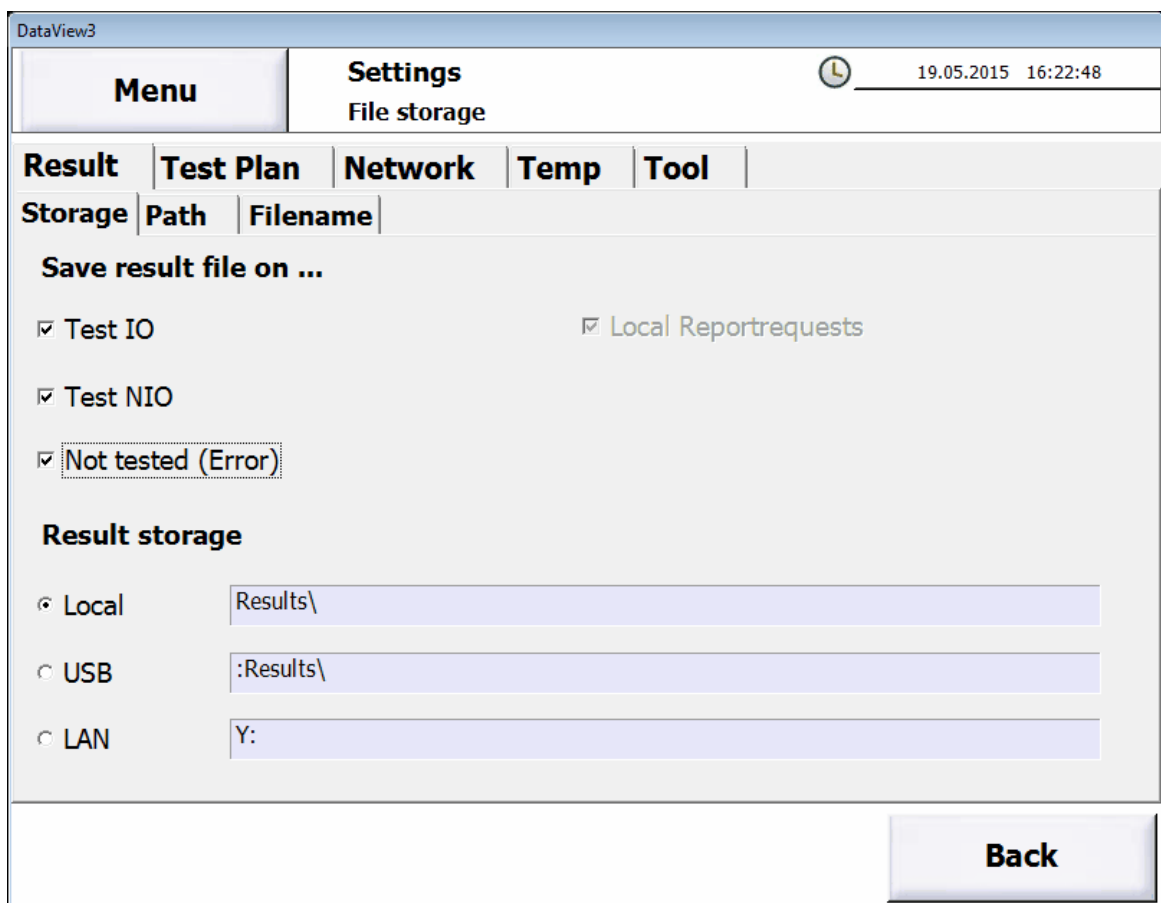
**Information**

The settings in this dialog will also be used for the [report files](#) and the [dummy test](#).

Result files will not be created by the single test.

2.2.9.1.1 Storage media

On the property page [Storage](#) you can define which test results will be saved and on which storage media they will be stored.



The screenshot shows the 'DataView3' application window with the 'Settings' tab selected. The 'File storage' sub-tab is active. The 'Menu' bar includes 'Result', 'Test Plan', 'Network', 'Temp', and 'Tool'. The 'Storage' section has a 'Path' and 'Filename' field. Under 'Save result file on ...', there are three checked options: 'Test IO', 'Test NIO', and 'Not tested (Error)'. The 'Local Reportrequests' checkbox is also checked. The 'Result storage' section has three radio buttons: 'Local' (selected), 'USB', and 'LAN'. The 'Local' option has a text field containing 'Results\'. The 'USB' option has a text field containing ':Results\'. The 'LAN' option has a text field containing 'Y:'. A 'Back' button is located at the bottom right.

In the upper part of the property page [Storage](#) you can select in which cases result files will be stored. In the part below the storage media will be chosen.

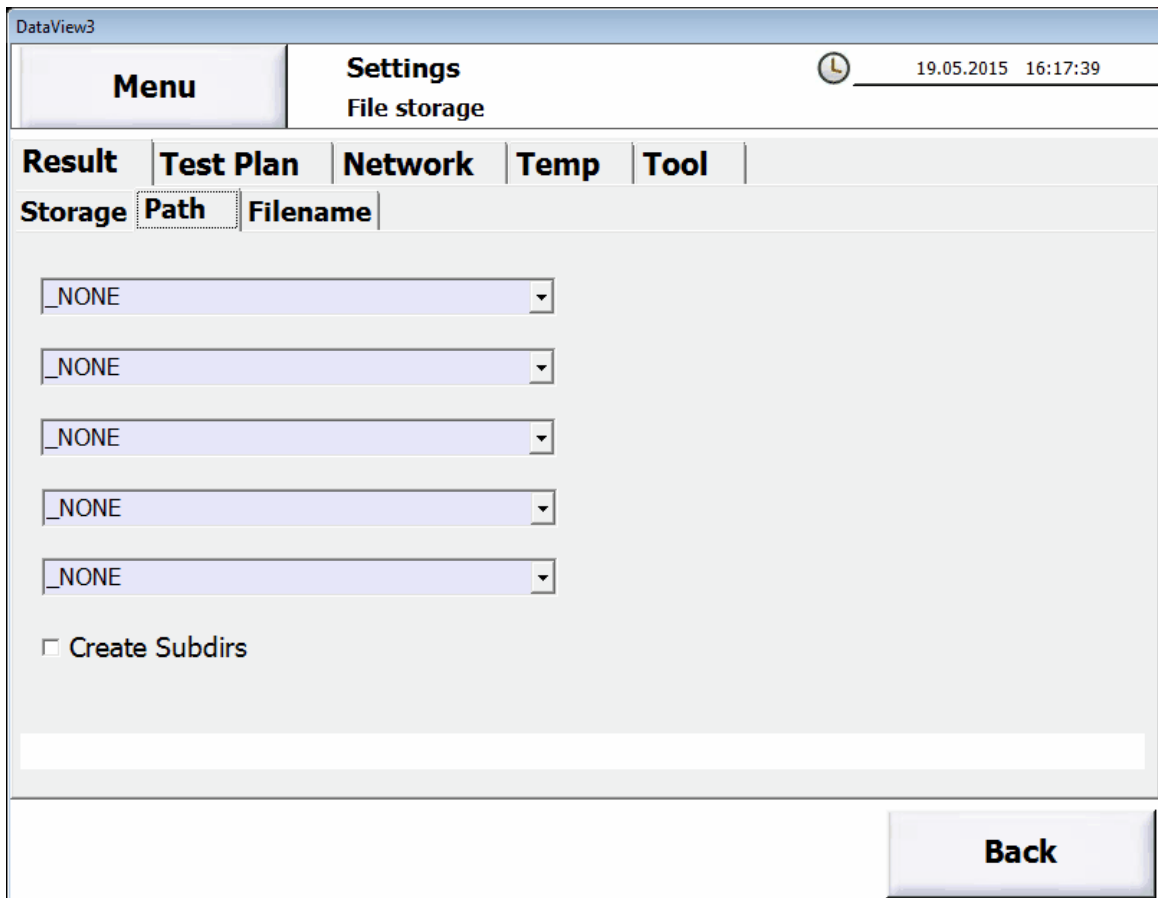
Parameter	Description
Test IO.	The test will be stored when the over all result is passed, meanig all measurements have been

Parameter	Description
	between the limits and all visual inspections have passed.
Test NIO	The test will be stored when the over all result is failed, meaning at least in one test the measurements are out of limit or at least one visual inspection has failed.
Not tested (Error)	The test will be stored when during the test an abort occurred or the test condition could not be met. You cannot tell if the unit under test would have passed or failed.
Local report requests	With the variants X4 and X5 there is the possibility to create the report files on a different system. In this case the check box can be deactivated. The checkbox is operational if it is variant X4 or X5 and LAN is chosen as Result storage.
Local	The storage takes place on the local storage media. The folder where the files will be stored is displayed. With the variants X2, X6 and X8 the folder is relative to the working directory, with the variants X2 and X4 it is absolute.
USB	The storage will take place on the first found removable storage media. The folder where the files will be stored is displayed.
LAN	The storage takes place in the network . The folder where the files will be stored is displayed.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.1.2 Folder

On the property page **Path** you can define rules for creating folders.



You can use up to 5 keywords to create the folder name.

**Important**

Will by creating the folder name a preset keyword or a keyword from the test type **Data input** be used invalid folder names may arise when they should be stored in subfolders.

Parameter	Description
Dropdownbox	There are 5 dropdownboxes available to be used as part of the folder name. The factory default is _NONE for all elements. The choosable values are described below.

Parameter	Description
Create Subdirs	Is this checkbox inactive only one level of subfolders is created. Is it active additional levels of subfolders will be created.

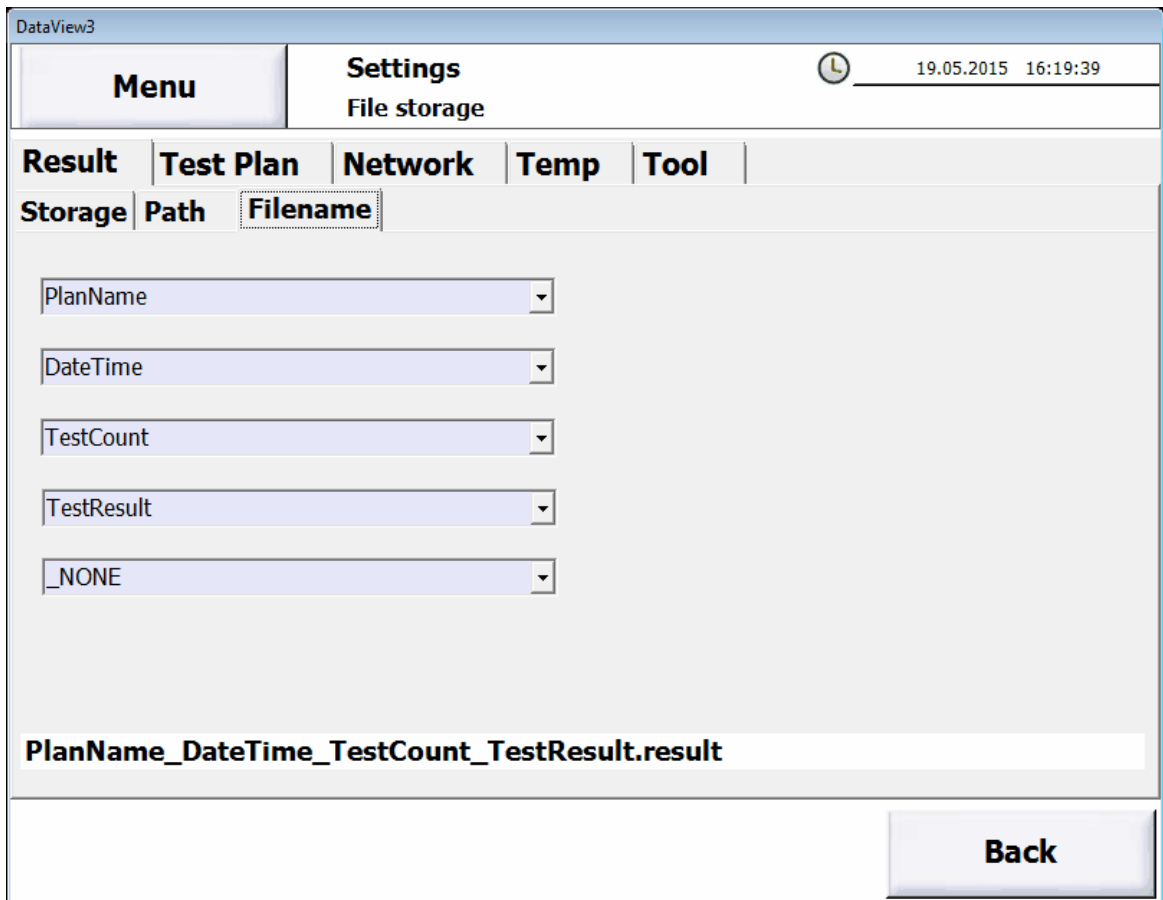
Value	Description
_NONE	No keyword will be used for the folder name.
Tag	An additional entry field is displayed. In this field a keyword is to enter. Normally this is the field name from the test step Datainput .
PlanName	The name of the test plan is used. This is the name entered during creation or copying .
PlanID	The used identification using automatic test selection with keyboard will be used if the field is not configured as Combibox. Using manual test selection this field is empty.
Workstation	The name of the workstation from the settings or the test type Batch will be used. Take care that at least in one of the possibilities a value is entered into the field.
Type	The input into the field ID using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
UsedID	The used identification using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
SerialNumber	The entry into the field Serial number using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
Article	The input into the field Article using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.

The combined path is displayed in the lower area whereby the folder depth is marked by an underscore or a backslash.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.1.3 File name

On the property page [Filename](#) you can define the name of the result und report files.



The screenshot shows the 'DataView3' application window. At the top, there's a 'Menu' button and a 'Settings' section with a clock icon and the date/time '19.05.2015 16:19:39'. Under 'Settings', 'File storage' is selected. Below this, there are tabs for 'Result', 'Test Plan', 'Network', 'Temp', and 'Tool'. The 'Test Plan' tab is active, and within it, the 'Filename' sub-tab is selected. This sub-tab contains five dropdown menus: 'PlanName', 'DateTime', 'TestCount', 'TestResult', and '_NONE'. Below these dropdowns, a text field shows the resulting filename: 'PlanName_DateTime_TestCount_TestResult.result'. At the bottom right, there is a 'Back' button.

You can use up to 5 keywords to create the file name.

**Important**

Will in the file name not choose to use DateTime only the last dummy test will be recorded. Will the dummy test be executed after a certain amount of tests the result file and the report of the last test will be overwritten.

Parameter	Description
Dropdownbox	There are 5 dropdownboxes available to be used as part of the file name. The factory default is <u>_NONE</u> for all elements. The choosable values are described below.

Wert	Description
<u>_NONE</u>	No keyword will be used for the file name.
Tag	An additional entry field is displayed. In this field a keyword is to enter. Normally this is the field name from the test step Datainput .
PlanName	The name of the test plan is used. This is the name entered during creation or copying .
PlanID	The used identification using automatic test selection with keyboard will be used if the field is not configured as Combobox. Using manual test selection this field is empty.
DateTime	The current date and time will be used. The formatting is YYMMTT-hhmmss, whereby YY: year with two digits MM: month TT: day hh: hour mm: minute ss: second is.
TestResult	Overall result of the test.
TestCount	Count of the tests since the test plan has been loaded.
TestCount_IO	Count of the tests with overall result passed since the test plan has been loaded.
Workstation	The name of the workstation from the settings or the test type Batch will be used. Take care that a least in one of the possibilities a value is entered into the field.

Wert	Description
Type	The input into the field ID using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
UsedID	The used identification using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
SerialNumber	The entry into the field Serial number using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.
Article	The input into the field Article using automatic test selection with keyboard or the file Plan.ID is used. Using automatic test selection with ETL-Interface or manual test selection this field is empty.

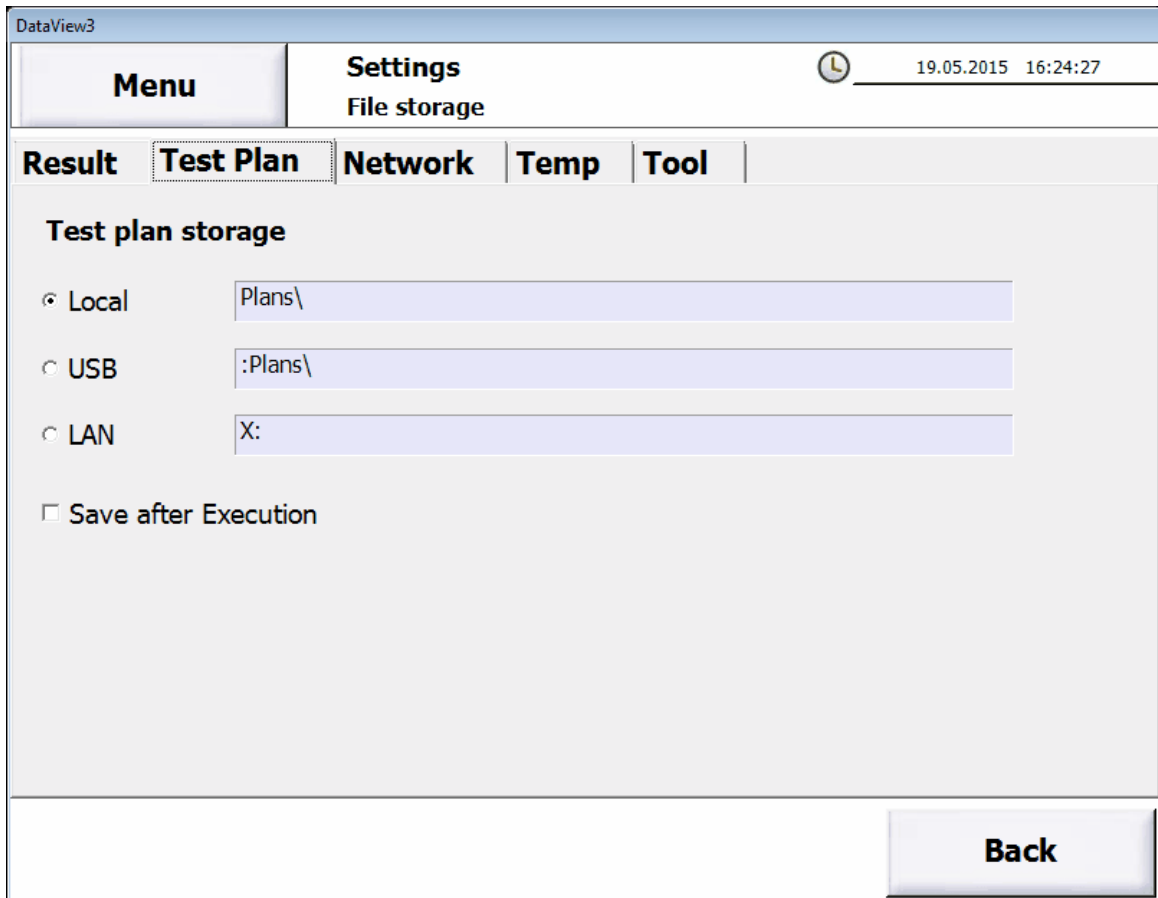
The combined file name is displayed in the lower aerea.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.2 Test plans

Open the dialog choosing [Settings](#) -> [File storage](#) -> [Test Plan](#).

You can select the storage of the test plans.



The screenshot shows a software window titled 'DataView3'. It has a 'Menu' tab and a 'Settings' section with 'File storage' selected. Below this, there are tabs for 'Result', 'Test Plan', 'Network', 'Temp', and 'Tool'. The 'Test Plan' tab is active, displaying 'Test plan storage' options. There are three radio buttons: 'Local' (selected), 'USB', and 'LAN'. Each has a corresponding text field: 'Plans\' for Local, ':Plans\' for USB, and 'X:' for LAN. There is also a checkbox labeled 'Save after Execution' which is unchecked. A 'Back' button is located at the bottom right of the dialog.

You can select the storage media.

Parameter	Description
Local	The storage takes place on the local storage media. The folder where the files will be stored is displayed. With the variants X2, X6 and X8 the folder is relative to the working directory, with the variants X2 and X4 it is absolute.
USB	The storage will take place on the first found removable storage media. The folder where the files will be stored is displayed.
LAN	The storage takes place in the network . The folder where the files will be stored is displayed.
Save after Execution	Is this checkbox active the test plan will also be stored after executing a test. This will

Parameter	Description
	preserve data entered by the tester as default in the test types Batch and Data input when using the test plan again.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.3 Network

Open the dialog choosing **Settings** -> **File storage** -> **Network**.

These settings must be done only when you store result files and report files in the network. The settings for the property pages **Result** and **Test plan** are identical and will be shown only for the property page **Result**.

With the variants X6 and X8 there is the possibility to use a mapped drive from **Windows**. This is described in chapter **Administration** -> **System setup** -> **Adding to a network** -> **Variants X6 or X8** -> **Create a network drive**.

With the variants X4 and X5 connections have been established according to chapter **Administration** -> **System setup** -> **Adding to a network** -> **Variants X4 or X5** to the following server types.

	NetDCU8	NetDCU11	NetDCU14
Windows XP SP3	successfull		
Windows 7 32 bit	successfull	successfull	successfull
Windows 7 64 bit	successfull	successfull	successfull
Windows 2003 Server	successfull		
Windows 2008 Server	successfull	successfull	successfull

**Important**

With the variants X4 and X5 a connection can only be established with a share. Only the format \\<hostname>\<share> is valid. A connection to a subfolder in the format \\<hostname>\<share>\<folder> is not possible.

DataView3

Menu **Settings** 19.05.2015 16:26:10

File storage

Result **Test Plan** **Network** **Temp** **Tool**

Shared folder

Result **Test Plan**

Path

Domain

Username

Password

Not connected **Connect**

Back

The network settings are getting effective when the storage media **LAN** for result files resp. test plans has been chosen.

Parameter	Beschreibung
Path	The path for the share has to be supplied. This is specified in the format \\<hostname>\<share>.
Domain	The name of the domain has to be supplied.
Username	The user name who can use the share has to be supplied.

Parameter	Beschreibung
Password	The password for the user has to be supplied.

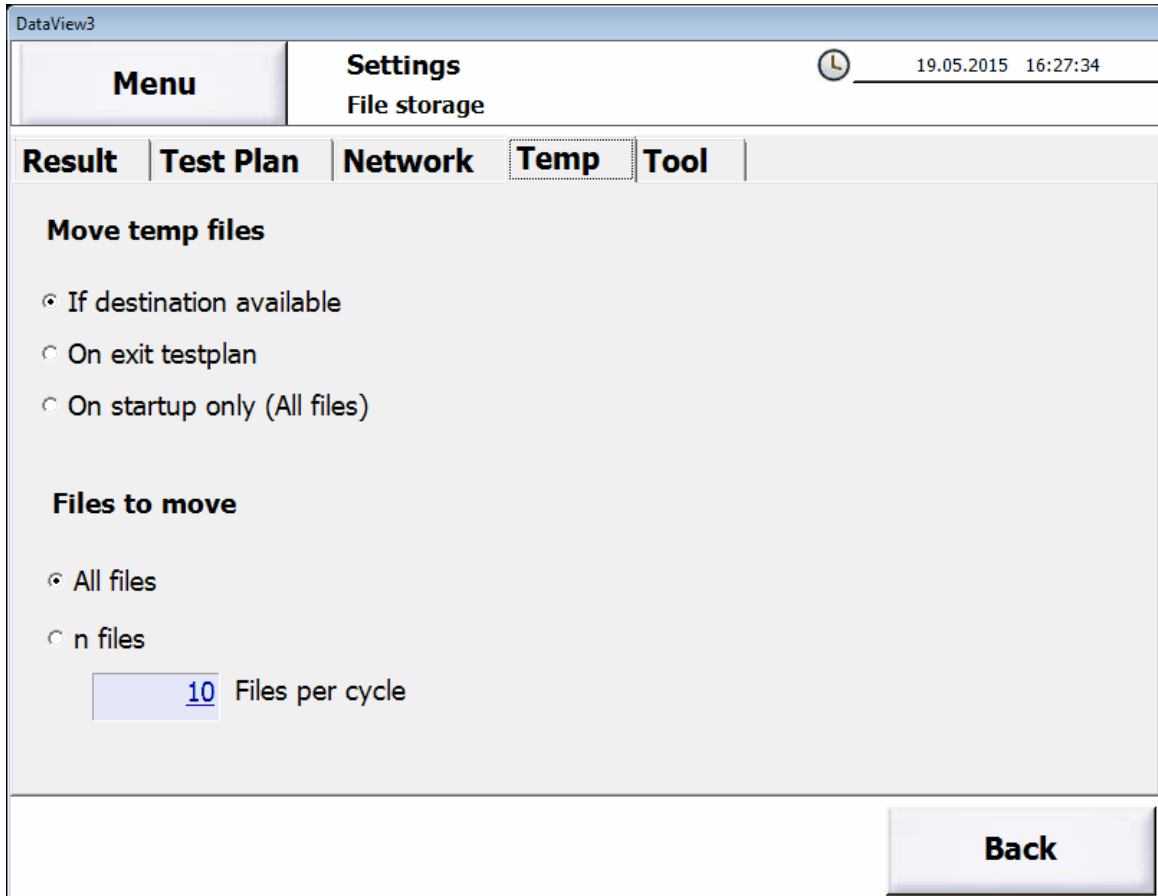
Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Connect	It will try to establish a connection. Was this successfull the text will change from Not connected to Connected .
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.4 Temporary files

Open the dialog choosing **Settings** -> **File storage** -> **Temp**.

When storing on the storage media **USB** resp. **LAN** has the possibility that the storage media is not available (due to networkk problems or a missing or full removable sotrage media). In this case the files will be stored locally. This can potentially a large amount of data on the local storage medium accumulate which take a certain amount of time when be moved. Since during moving you cannot test the point in time of moving and the amount of files can be specified. The factory default is **If destination availabe** and **10 files per cycle**.

On the property page **Temp** you define when temporary stored result files and report files will be moved to their original destination folder.



This setting is only valid when the storage media for the result files is set to **USB** or **LAN**. In this case there is the possibility that the storage media is not available when storing result files or report files. In this case the files will be stored locally. These files will be moved in the case the storage media is available again. Since there is the possibility that a larger amount of data must be moved and you cannot test during that activity you can define when and how much files will be moved. Factory default is **If destination available**.

With **If destination available** the files will be moved after the next test.

With **On exit testplan** the files will be moved the test plan will be exited.

With **On startup only (All files)** all files will be moved when **ETL DataView 3** is starting.

The radio button below **Files to move** are only valid when **If destination available** or **On exit testplan** is selected.

You can define that all files or a limited number of files should be moved.

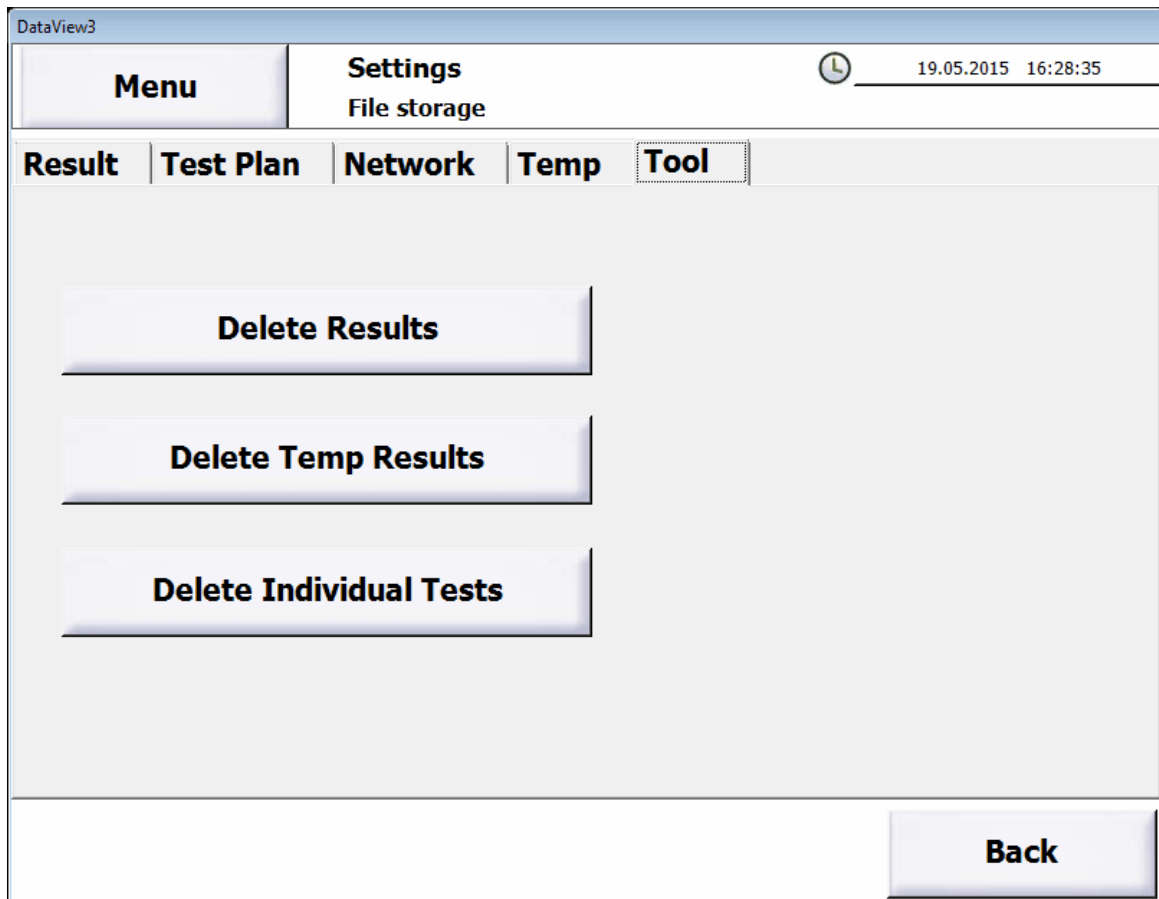
Parameter	Beschreibung
If destination available	The files will be moved after the next test and if the target can be reached.
On exit testplan	The files will be moved when the test plan will be exited and if the target can be reached.
On startup only (All files)	All files will be moved when ETL DataView 3 is starting and if the target can be reached. In this case it will try to move all files.
All files	All files will be moved. This radio button is not operatable when On startup only (All files) has been choosen.
n files	Only the amount of files will be moved a given in Files per cycle . This radio button is not operatable when On startup only (All files) has been choosen.
Files per cycle	You specifiy the maximum amount of files which will be moved. Consists the output of a test of a result file and one or more report files it could happen that in one cycle not all files will be moved. This field is not operatable when On startup only (All files) has been choosen.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.9.5 Tool

Open the dialog choosing **Settings** -> **File storage** -> **Tool**.

You can **permanently** delete files stored on the testing device. There **will be no** confirmation dialog.




You can delete temporary stored files and result files.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Delete Result	All result files and report files will be deleted.
Delete Temp Results	All temporary stored result files and report files will be deleted.
Delete Individual Tests	the parameters of all single tests are rest to factory default.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

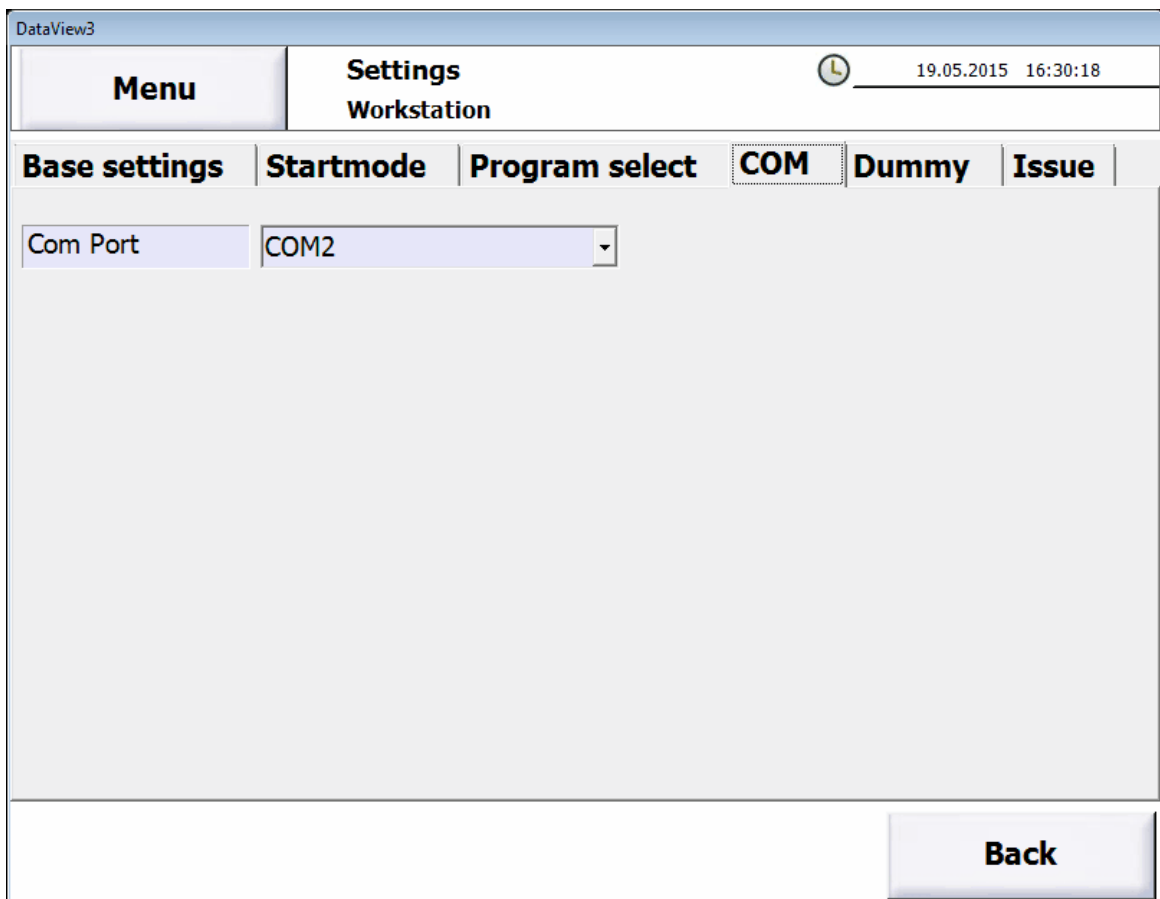
2.2.10 Serial interface

For **ETL Dataview 3** can connect to the device the serial interface must be configured. You must do this only when installing **ETL Dataview 3** on your own system.

**Important**

With the variants **ATS400** X8 and X6 the serial interface is set to COM2 as factory default. With the variants **ATS400** X5 and X4 the serial interface cannot be configured.

Open the dialog choosing **Settings** -> **Workstation** -> **COM**.



The screenshot shows the 'DataView3' application window. The 'Settings' tab is active, and the 'Workstation' sub-tab is selected. The 'COM' configuration section is visible, showing a 'Com Port' dropdown menu set to 'COM2'. The 'Back' button is located at the bottom right of the dialog.

All available serial interfaces on the system will be displayed. Choose those interface the **ATS400** is connected with. The settings will be stored in the file **Settings.conf**.

After clicking on the button **Connect** the serial interface will be opened and tried to connect to the device. Is a connection established the LED **Remote** at the front of

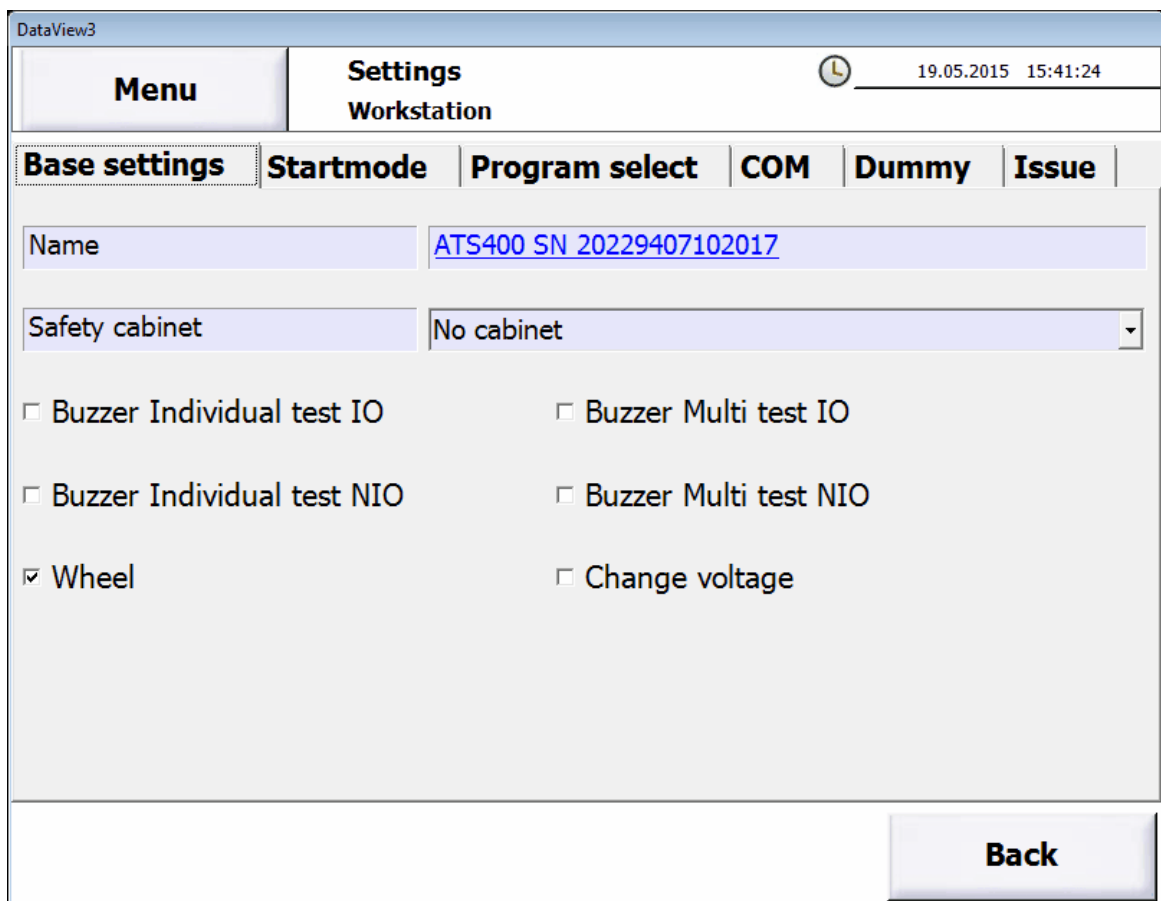
the **ATS400** is on. This is just a connection test. To work with the system close the dialog with the button **Back** and exit **ETL DataView 3**.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.11 Push button

Using a second front together with variant X2 it is necessary to deactivate the push button on the front.

Open the dialog choosing **Settings** -> **Workstation** -> **Base settings**.



The screenshot shows the 'DataView3' window with the 'Settings Workstation' dialog open. The 'Base settings' tab is selected. The 'Name' field contains 'ATS400 SN 20229407102017'. The 'Safety cabinet' dropdown is set to 'No cabinet'. There are six checkboxes: 'Buzzer Individual test IO', 'Buzzer Multi test IO', 'Buzzer Individual test NIO', 'Buzzer Multi test NIO', 'Wheel' (which is checked), and 'Change voltage'. A 'Back' button is located at the bottom right of the dialog.

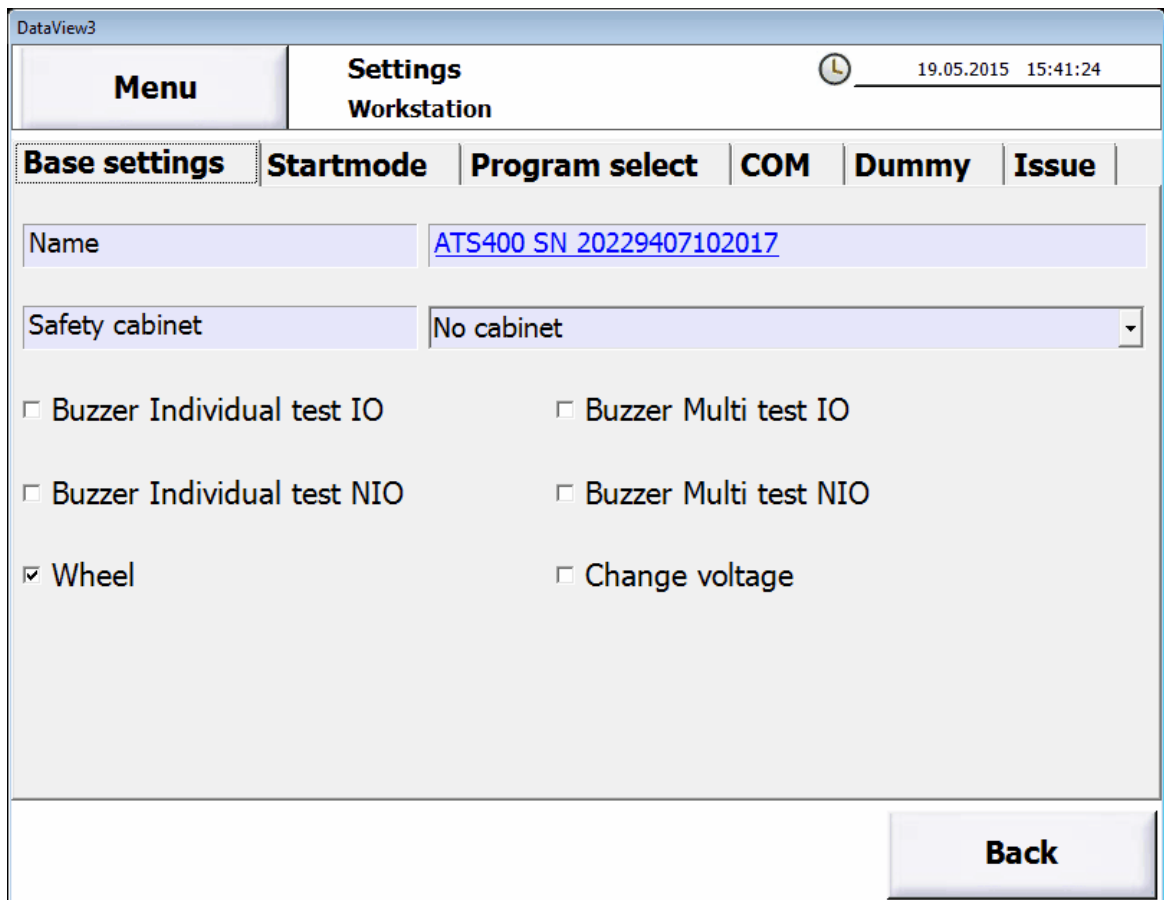
Is the checkbox **Wheel** active the push button can be used. This setting is stored in the file **Settings.conf**.

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.12 Change voltage

There is the possibility to change the voltage of a high voltage test during the test using the push button. This possibility must be activated.

Open the dialog choosing [Settings](#) -> [Workstation](#) -> [Base settings](#).



Is the checkbox [Change voltage](#) active you can use the push button to change the voltage during a test. This setting is stored in the file [Settings.conf](#).

Button	Action
Menu	The changes will be discarded without any confirmation. The window will be closed and the

Button	Action
	windows Main menu will be displayed again.
Back	The changes will be stored and the window will be closed. The window Settings will be displayed again.

2.2.13 Dummy test plan

The dummy test plan is created by ETL Prüftechnik and will be delivered with the dummy. You can use only one dummy test plan. The dummy test plan is stored in the subfolder **DummyPlan** of the **ETL DataView 3** folder. There must only one file with the extension **.plan** in this folder.

The dummy test plan will be used as a normal test plan. A result file will be created according to the settings in **Settings** -> **File Storage**.

As factory default a dummy test plan doesn't create a report file.

The execution of the dummy test plan is done manually or according to the settings in **Dummy test**.



Caution

The following procedure is not covered by any rights within **ETL DataView 3**. The work described here can be done by any user having the right to change test plans.



Important

The name of the result file and the report files are according to the same rules as with normal test plans.

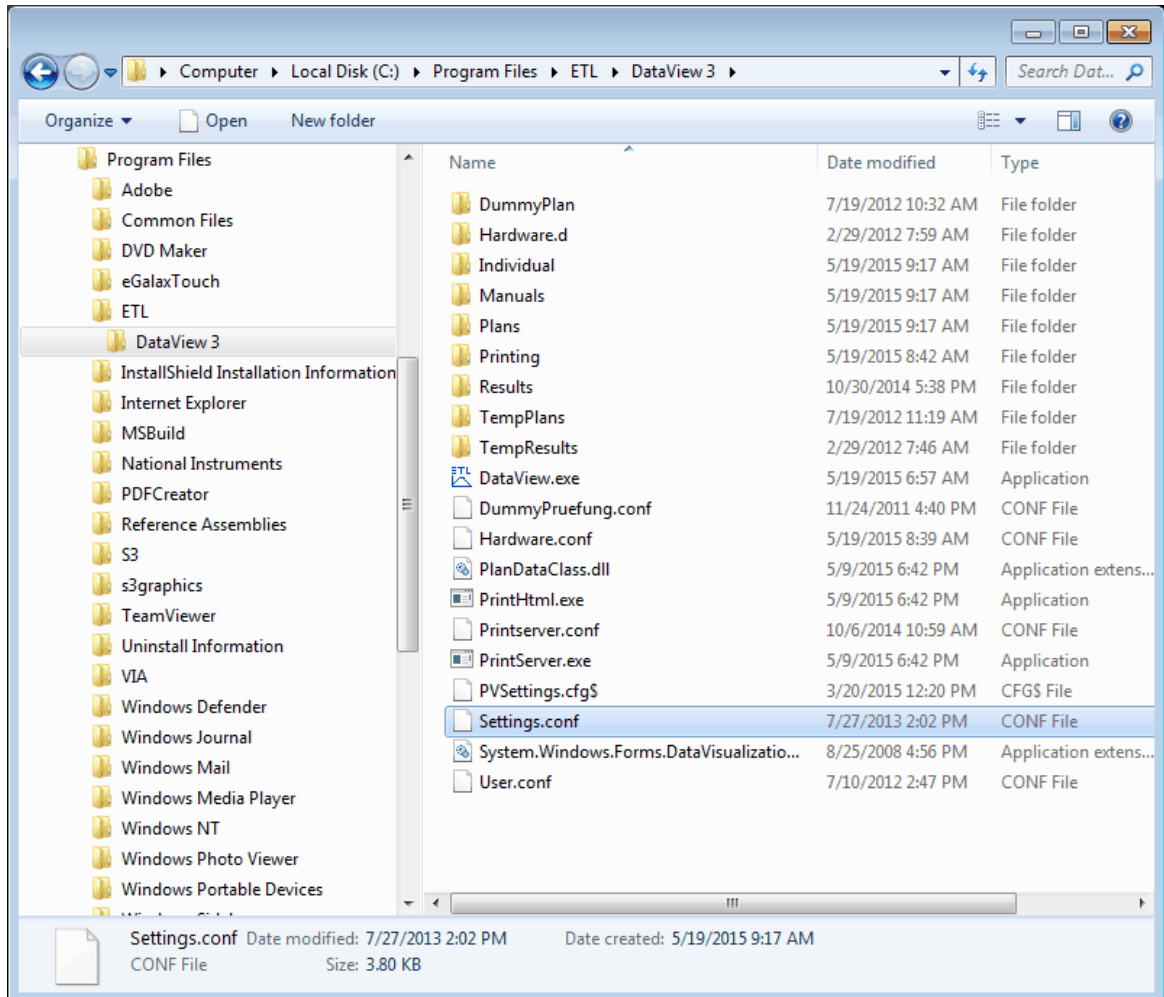
Will in the file name not choose to use DateTime only the last dummy test will be recorded. Will the dummy test be executed after a certain amount of tests the result file and the report of the last test will be overwritten.

Will by creating the folder name a preset keyword or a keyword from the test type Data input be used invalid folder names may arise when they should be stored in subfolders.

Exit a running **ETL DataView 3**.

Copy the dummy test plan for Subfolder **DummyPlan** into the folder where your test plans are located. Be careful not to overwrite an existing test plan.

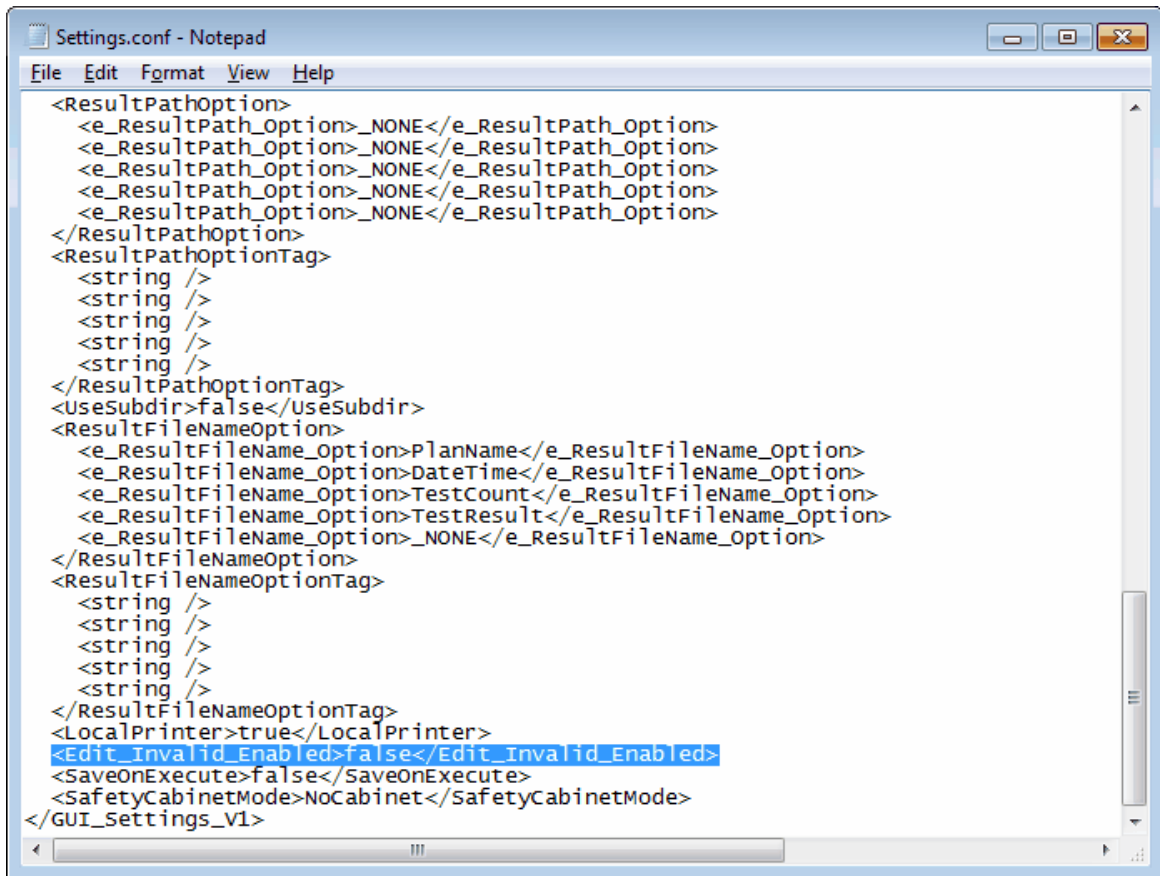
Navigate in Windows Explorer to the folder **C:\Programm files\ETL\DataView 3**. Open the file **Settings.conf** with the Windows Editor.



Open the file with a double click and select in the opening dialog **Select a program from a list of installed programs** and close it with the button **OK**.

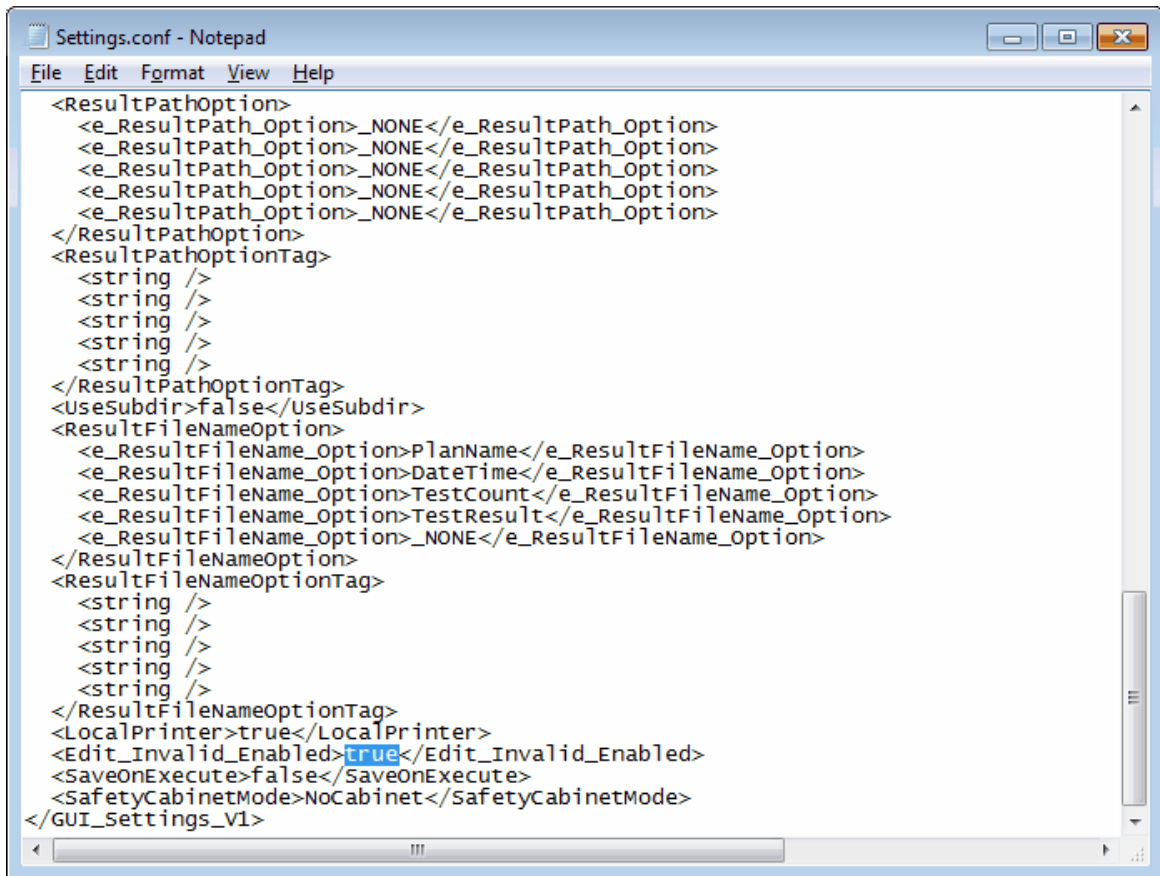
In the next dialog choose **Notepad** and close the dialog with the button **OK**.

Windows Notepad will open. Find the line with the entry `Edit_Invalid_Enabled`.



```
<Settings.conf - Notepad>
File Edit Format View Help
<ResultPathOption>
  <e_ResultPath_Option>_NONE</e_ResultPath_Option>
  <e_ResultPath_Option>_NONE</e_ResultPath_Option>
  <e_ResultPath_Option>_NONE</e_ResultPath_Option>
  <e_ResultPath_Option>_NONE</e_ResultPath_Option>
  <e_ResultPath_Option>_NONE</e_ResultPath_Option>
</ResultPathOption>
<ResultPathOptionTag>
  <string />
  <string />
  <string />
  <string />
  <string />
</ResultPathOptionTag>
<UseSubdir>false</UseSubdir>
<ResultFileNameOption>
  <e_ResultFileName_Option>PlanName</e_ResultFileName_Option>
  <e_ResultFileName_Option>DateTime</e_ResultFileName_Option>
  <e_ResultFileName_Option>TestCount</e_ResultFileName_Option>
  <e_ResultFileName_Option>TestResult</e_ResultFileName_Option>
  <e_ResultFileName_Option>_NONE</e_ResultFileName_Option>
</ResultFileNameOption>
<ResultFileNameOptionTag>
  <string />
  <string />
  <string />
  <string />
  <string />
</ResultFileNameOptionTag>
<LocalPrinter>true</LocalPrinter>
<Edit_Invalid_Enabled>false</Edit_Invalid_Enabled>
<SaveOnExecute>false</SaveOnExecute>
<SafetyCabinetMode>NoCabinet</SafetyCabinetMode>
</GUI_Settings_V1>
```

Change the value from `false` into `true`.



```

<GUI_Settings_V1>
  <ResultPathOption>
    <e_ResultPath_Option>_NONE</e_ResultPath_Option>
    <e_ResultPath_Option>_NONE</e_ResultPath_Option>
    <e_ResultPath_Option>_NONE</e_ResultPath_Option>
    <e_ResultPath_Option>_NONE</e_ResultPath_Option>
    <e_ResultPath_Option>_NONE</e_ResultPath_Option>
  </ResultPathOption>
  <ResultPathOptionTag>
    <string />
    <string />
    <string />
    <string />
    <string />
  </ResultPathOptionTag>
  <UseSubdir>false</UseSubdir>
  <ResultFileNameOption>
    <e_ResultFileName_Option>PlanName</e_ResultFileName_Option>
    <e_ResultFileName_Option>DateTime</e_ResultFileName_Option>
    <e_ResultFileName_Option>TestCount</e_ResultFileName_Option>
    <e_ResultFileName_Option>TestResult</e_ResultFileName_Option>
    <e_ResultFileName_Option>_NONE</e_ResultFileName_Option>
  </ResultFileNameOption>
  <ResultFileNameOptionTag>
    <string />
    <string />
    <string />
    <string />
    <string />
  </ResultFileNameOptionTag>
  <LocalPrinter>true</LocalPrinter>
  <Edit_Invalid_Enabled>true</Edit_Invalid_Enabled>
  <SaveOnExecute>false</SaveOnExecute>
  <SafetyCabinetMode>NoCabinet</SafetyCabinetMode>
</GUI_Settings_V1>

```

Save the file and close the editor.

Start **ETL DataView 3** again.

Change the dummy test plan by adding the desired report options. Exit **ETL DataView 3** again.

Change in the subfolder **DummyPlan** the extension of the file from `.plan` into `.plan$`.

Move the dummy test plan from the folder with your test plans into the subfolder **DummyPlan**.

Change the value in `Edit_Invalid_Enabled` in the file `Settings.conf` from `true` to `false`.

2.2.14 Printserver configuration

For configuring the print server the [configuration file](#) must be present. You can configure that the files from the report creation will be stored in a different location as the result files, the behaviour how to deal with unknown keywords in the report und the timeout for waiting on PDF-reports or printing.



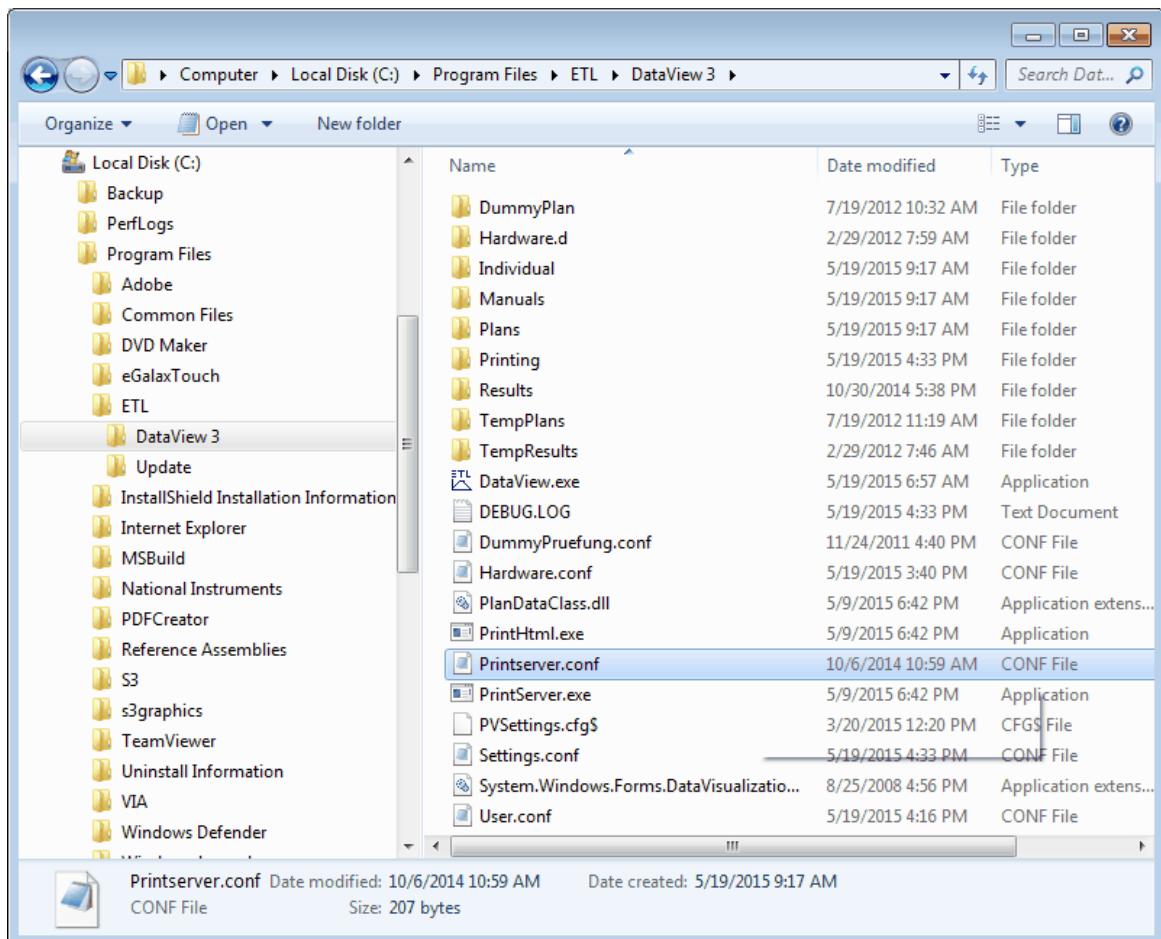
Important

In the case the configured folder is on an external storage media, e. g. a memory stick or network, this media must be present before the first report will be created. The tester will see a runtime message and the file **will not** be stored.

This settings must be made manually and are not supported by **ETL DataView 3**.

Exit **ETL DataView 3**. The configuration will only be read during startup.

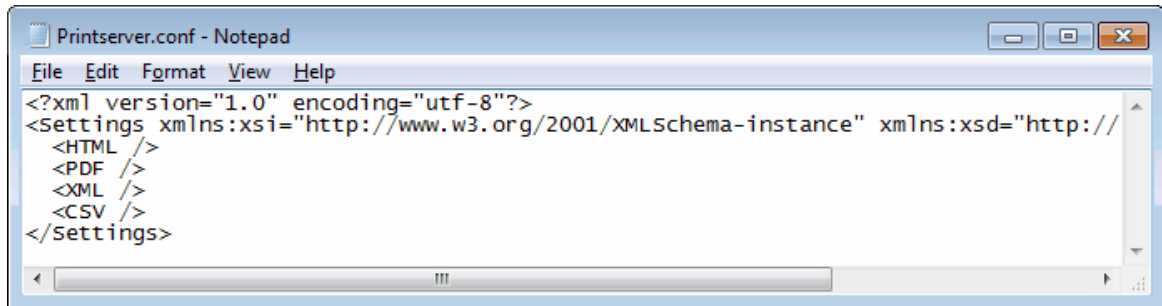
Navigate in Windows Explorer to the folder **C:\Programm Files\ETL\DataView 3**. Open the file **Printserver.conf** with Notepad.



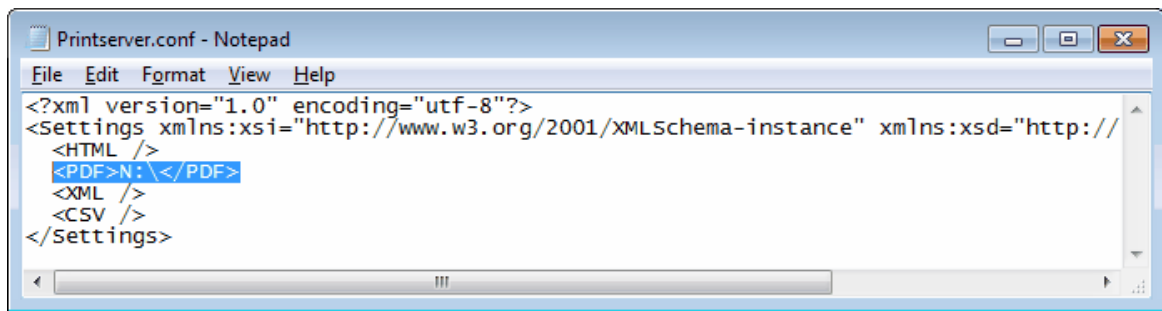
Open the file with a double click and select in the opening dialog **Select a program from a list of installed programs** and close it with the button **OK**.

In the next dialog choose **Notepad** and close the dialog with the button **OK**.

For configuring an alternative folder you must change the entry for the report type. The file contains for each report type an empty element. You must create an opening and closing element.



Add a folder name or change an existing folder name. In this example for the report type **PDF** to folder **N:**.



To change the timeout for the report file you must change one of the existing numbers. Be aware that the time is in milliseconds.

With the element **Debug** the output can be changed if an unknown keyword is found.

The element **PdfTimeout** is a time within the PDF-file must be created. Is the file created before this time is elapsed the next report can be created.

The element **PrintTimeout** is a wait time. The complete time will be waited before the next report can be created.

Save the file and close Notepad. Start **ETL DataView 3** again.

3 Test plan editing

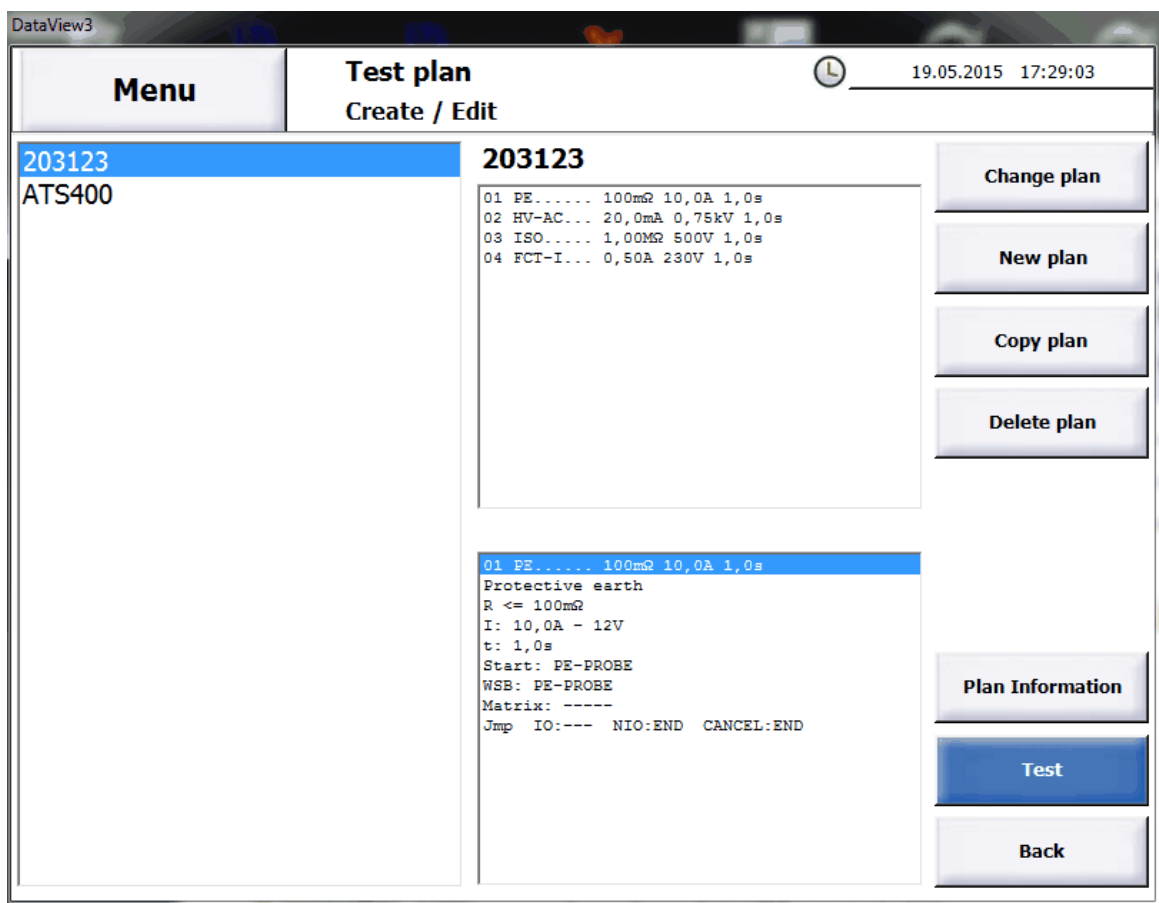
This part of the manual is aimed at the persons who create and edit the test plans.

It contains all information that is necessary to create the test plans in accordance with the requirements for the test and the existing test types.

All illustrations and options refer to the Windows variant that you receive with the **ATS400** variants X2, X6 and X8. The Windows CE variants with the **ATS400** variants X4 and X5 do not contain all options.

3.1 Administering test plans

Open the dialog choosing **Test plan** -> **Create / Edit**.



On the left side a list of the currently available test plans is displayed.

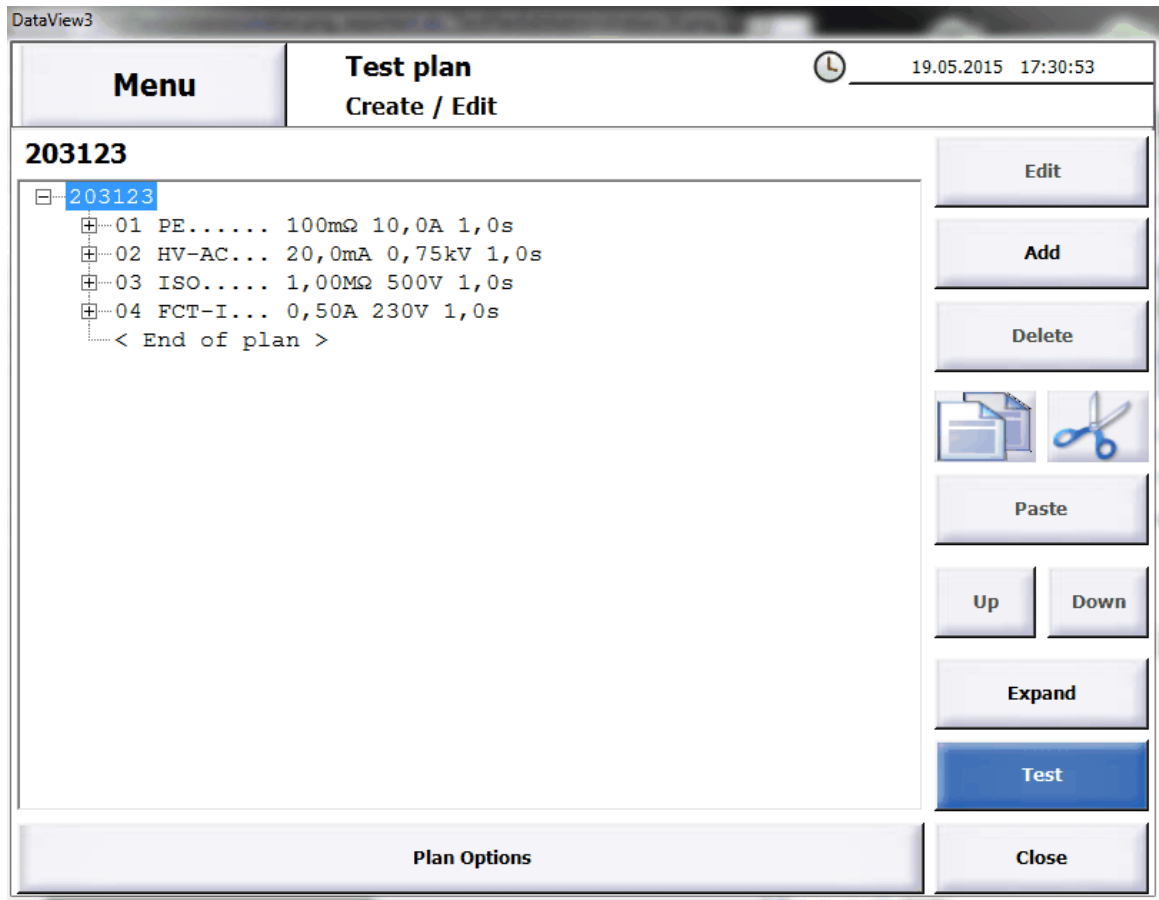
In the middle upper part the test steps in the selected test plan are displayed. If no test plan is selected, the list is empty.

In the middle lower part the data for the test step is displayed. If no test plan or no test step is selected, the list is empty.

Button	Action
Change plan	The window for Changing test plans will be displayed and the selected test plan can be changed.
New Plan	A new plan will be created. Details for this you will find in the quick start guide.
Copy plan	The selected test plan will be copied. You must enter a new name.
Delete plan	After a confirmation dialog the test plan will be deleted permanently if you confirm this.
Plan information	The window for Plan options will be opened. In this mode no changes can be made.
Test	The window Test plan will be opened.
Back	The window will be closed.

3.2 Changing test plans

Open the dialog choosing **Test plan** -> **Create / Edit** -> **Change plan**.



On the left side a list with the currently present test steps is displayed. The test steps can be expanded or collapsed.

Button	Action
Edit	This button is available in the case a test step is selected. The window for configuring the test step will be displayed.
Add	A new test step will be created. Details can be found in the quick start guide.
Delete	This button is available in the case a test step is selected. After a confirmation dialog the test step will be deleted permanently.
Copy	This button is available in the case a test step is selected. The test step will be copied to the

Button	Action
	internal clip board.
Cut	This button is available in the case a test step is selected. After a confirmation dialog the test step will be copied to the internal clip board and then will be deleted permanently.
Paste	This button is available when a test step is present in the internal clip board. This test step will be inserted below the selected test step. Jump targets of existing test steps will be adapted automatically. The Jump targets of the inserted test step will be set to default values.
Up	This button is available in the case a test step is selected. The selected test step will be moved one position upwards. Jump targets will be adapted automatically.
down	This button is available in the case a test step is selected. The selected test step will be moved one position downwards. Jump targets will be adapted automatically.
Expand	All test steps of the test plan will be expanded. The text changes to Collapse .
Collapse	All test steps of the test plan will be collapsed. The text changes to Expand .
Test	The window Test will be opened.
Close	The window will be closed.
Plan Options	The window for Plan options will be opened. In this mode changes can be done.

3.3 Test types

For each test type exists specific parameters and common parameters. The specific parameters are unique for each test type and the common parameters are the same for all test types. Not all common parameters are present for every test type and may not be present when configuring a single test step.

Common parameters are:

[Ramp](#)

[Start conditions](#)

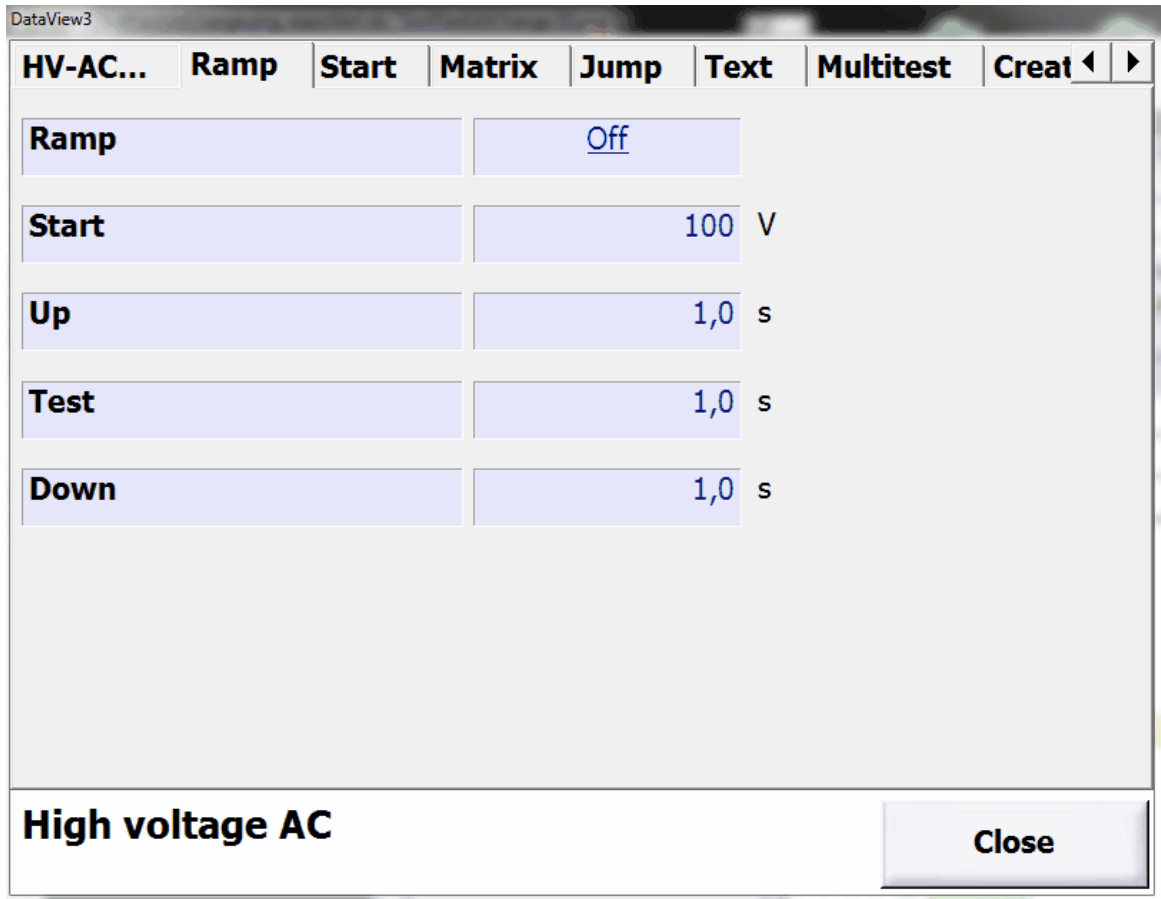
[Matrix](#)

[Jump](#)
[Text](#)
[Multitest](#)
[Create log](#)

3.3.1 Common dialogs

3.3.1.1 Ramp

The ramp configuration describes the ramp parameters.



HV-AC...	Ramp	Start	Matrix	Jump	Text	Multitest	Creat
Ramp		Off					
Start		100 V					
Up		1,0 s					
Test		1,0 s					
Down		1,0 s					

High voltage AC Close

Factory default is that no ramp is used.

Ramp: Turns the ramp on and off. The other parameters can be changed when ramp is turned on.

Start: Voltage with that the ramp will start.

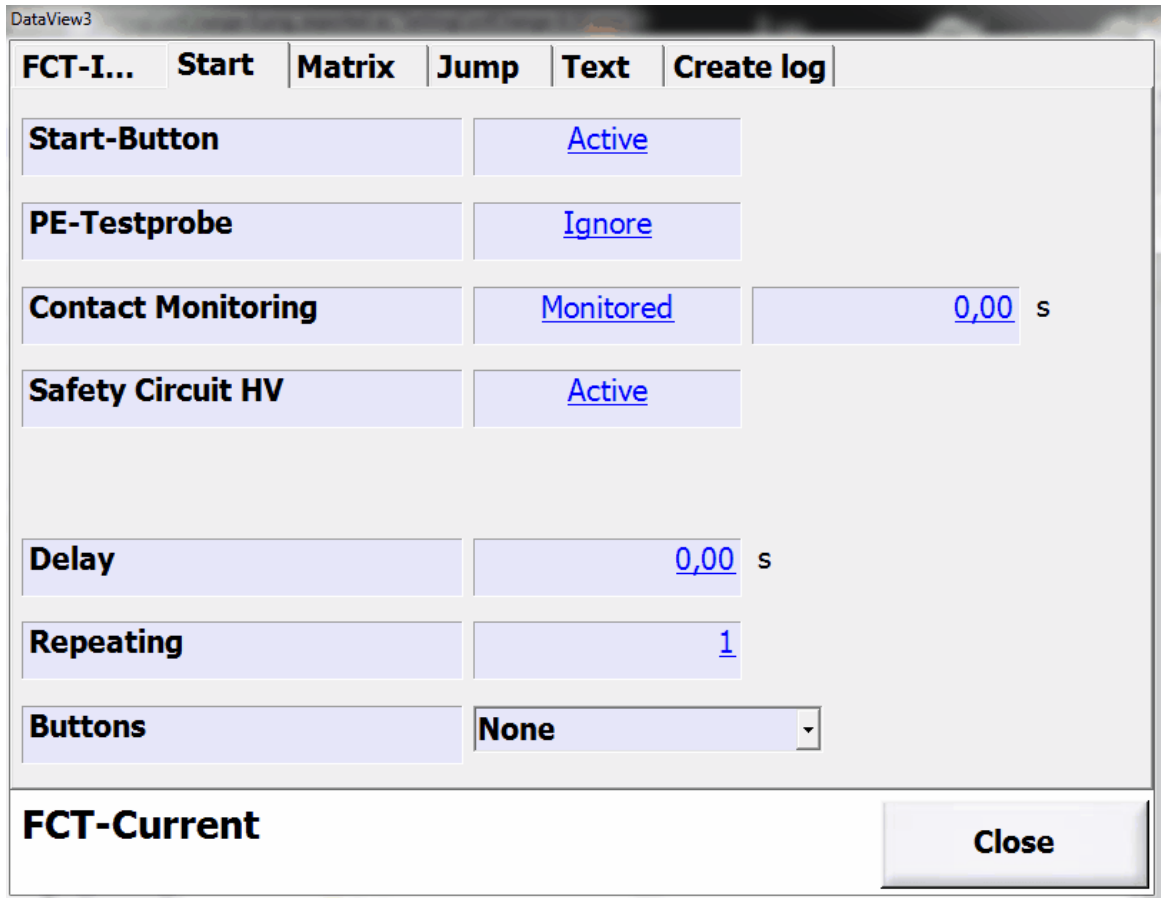
Up: Time in seconds from the start voltage up to the test voltage.

Test: Test time in seconds. This is the time the test voltage is applied to the unit under test. This is the same value a parameter **t** in the configuration dialog.

Down: Time in seconds from the test voltage to the end voltage.

3.3.1.2 Start conditions

The start conditions describe under which circumstances the test will start.



Signal	State	Value	Unit
Start-Button	Active		
PE-Testprobe	Ignore		
Contact Monitoring	Monitored	0,00	s
Safety Circuit HV	Active		
Delay		0,00	s
Repeating		1	
Buttons	None		

FCT-Current Close

Each signal can have one of four states.

Active: The signal must be set to provide a start.

Not Active: The signal must not be set to provide a start.

Ignore: The signal will be ignored.

Monitored: The signal must be set. It will be monitored that the signal will be set in the case all other signals with state **Active** are already set. Will the signal not be set within the configured time the test will be evaluated as failed and will be aborted. Are multiple signals with state **Monitored** the first signal reaching the time will fail and abort the test.

To select the state **Monitored** at least one other signal must have state **Active**.

Is there only one signal with state **Active** and no other signal has state **Monitored**, the state of that signal cannot be changed.

It is under the responsibility of the test plan editor to choose a combination that makes sense for his scenario.

The signal **Start-Button** allows the start with the **Starttaste** at the front or the signal **Button Start** on the ETL Interface or the **Start** button on the screen.

The signal **PE-Testprobe** allows the start with the button at the PE-Testprobe.

The signal **Contact Monitoring** allows the start with contacting, e. g. with test pistols.

The signal **Safety Circuit HV** allows the start with closing the safety circuit. For the test type **HV-AC** this value is always **Active** and cannot be changed. For the test types **HV-DC** and **ISO** it depends from the settings in the **ATS400**. If the value can be changed. Factory default is the value **Active** and cannot be changed.

Statechange requires that at least one of the signals with state **Active** or **Monitored** must change its state from not set to set to provide a start. When manually contacting the unit under test it ensures that the new test point has been contacted. This checkbox is not visible on single test and the first test step in a test plan and is always set.

Delay will delay the start of the test after the start conditions are met.

Repeating allows to execute test steps only once, each time or nth time to execute. Is the value 0 the test step will only be executed once. Is the value 1 it will be executed each time. For all other values the test step will be executed the first time and then be omitted for n-1 times. This parameter will not be displayed for single test.

Buttons is a combobox. You have four selections. This combobox is not visible for single test and set to **None**.

None doesn't show any buttons.

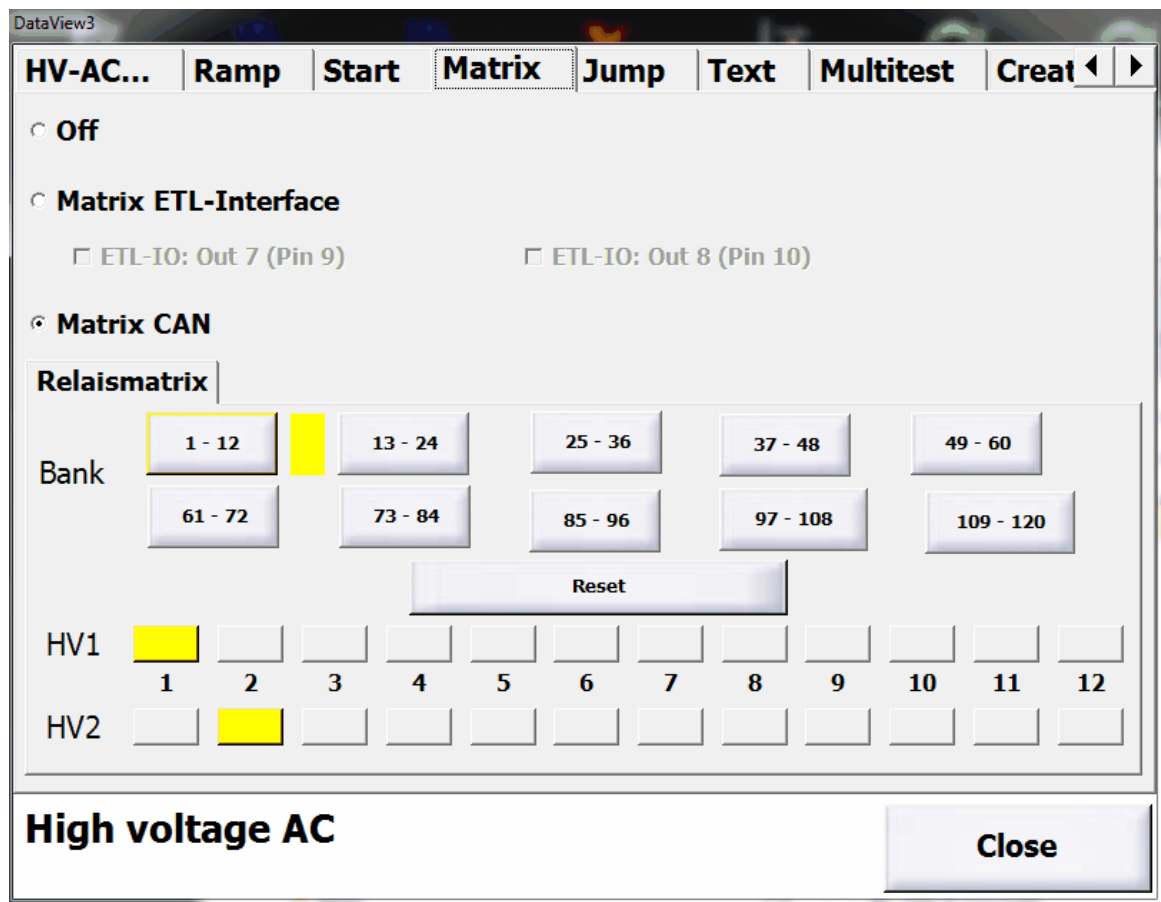
Skip allows the tester to omit the current test step. It will be evaluated as passed for the overall result.

Start allows to start the test step.

Start and skip shows the skip and the start button.

3.3.1.3 Matrix

With this property page the settings of a matrix will be configured.



Shown is the dialog in the case a [configuration file](#) is present.

Parameter	Description
Off	Both outputs of the ETL-Interface are off and all relais of a matrix are in default position.
Matrix ETL-Interface	The ETL-Ingterface will be used. This setting is only possible if in Settings -> I/O-Interface the check box Disable SC, Con is active.
ETL-IO: Out 7 (Pin9)	This check box determines the state of the output Out7 of the ETL-Interface.
ETL-IO: Out 8 (Pin10)	This check box determines the state of the output Out8 of the ETL-Interface.
Matrix CAN	This checkbox can be selected in the case a cofiguration file for a matrix is existent. If the checkbox is active the matrix can be configured.

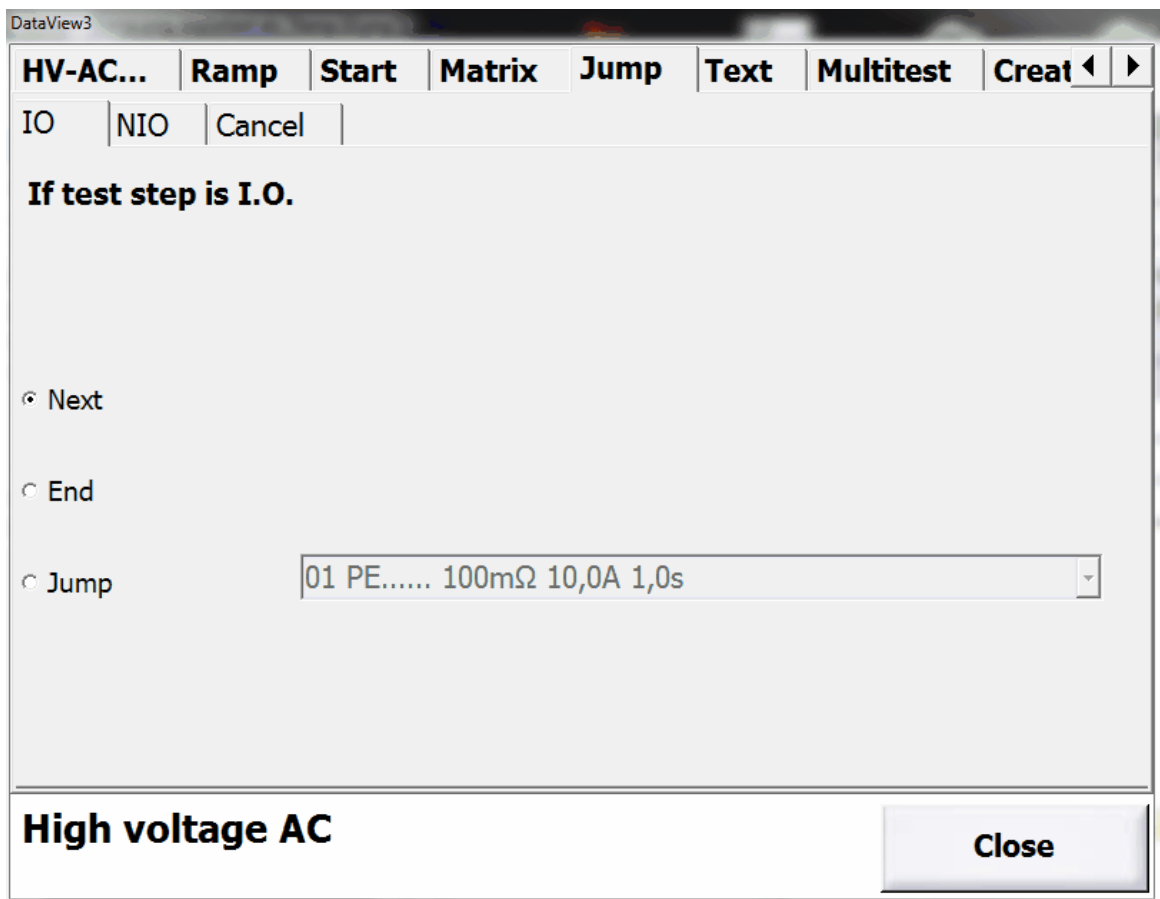
On the sub property page [Relaismatrix](#) are controls to configure the matrix.

Parameter	Description
Bank	With the buttons it can be switched between the banks of the different outputs. If there is a non default setting in a bank a yellow field will be displayed near the button.
Reset	Sets als outputs to the default setting.
HV1	If a button in this line is set the wire HV1 is switched to the corresponding output.
	In this line the number of the outputs of the active bank are displayed.
HV2	If a button in this line is set the wire HV2 is switched to the corresponding output.

In the example above the output 1 is connected to wire HV1 and output 2 is connected to wire HV2.

3.3.1.4 Jump

On this property page jumps are configured.



DataView3

HV-AC... **Ramp** **Start** **Matrix** **Jump** **Text** **Multitest** **Create** ◀ ▶

IO NIO Cancel

If test step is I.O.

☒ Next

☐ End

☐ Jump 01 PE..... 100mΩ 10,0A 1,0s

High voltage AC **Close**

On the property page **Jump** conditions can be configured how the test plan will select the next test step. For the test steps can provide three different results you have one property page for each different result. The settings are the same for each result.

On property page **IO** you define the target if a test has ended with passed.

On property page **NIO** you define the target if a test has ended with failed.

On property page **Cancel** you define the target if a test has been aborted.

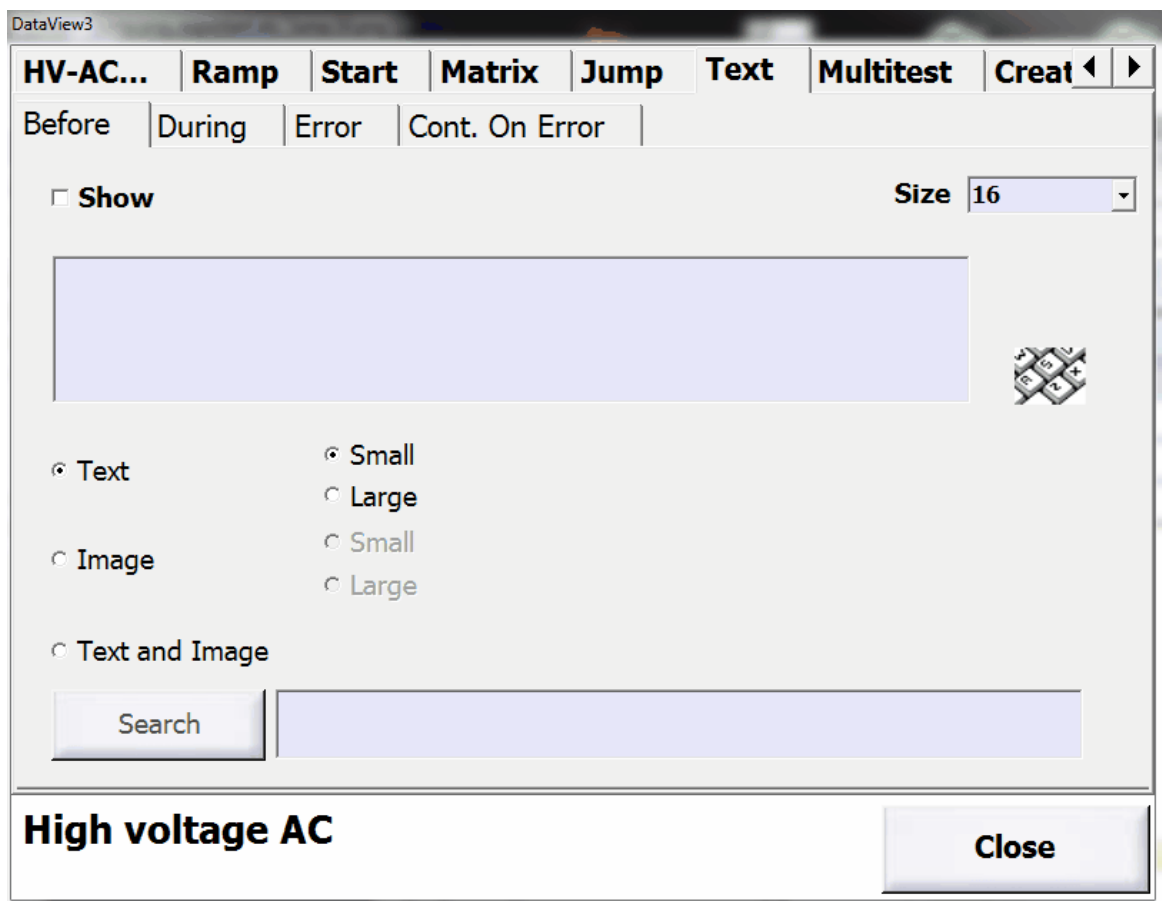
You can select **Next** and the test plan will proceed with the next step.

You can select **End** and the test plan will end.

You can select **Jump** and you can select a test step in the drop down box. The test plan will proceed with this test step.

3.3.1.5 Text

On this property page user advices are configured.



On the property page **Text** an text or picture can be shown before, during or on an erroneous test.

The text can be entered by a click on the white edit box and activated by setting the checkbox **Show**. The height of the font can be changed in the drop down box.

Will an advice been shown **Before** it will be visible until the start conditions are meet.

Will an advice been shown **During** a test it will be visible until the test step ends.

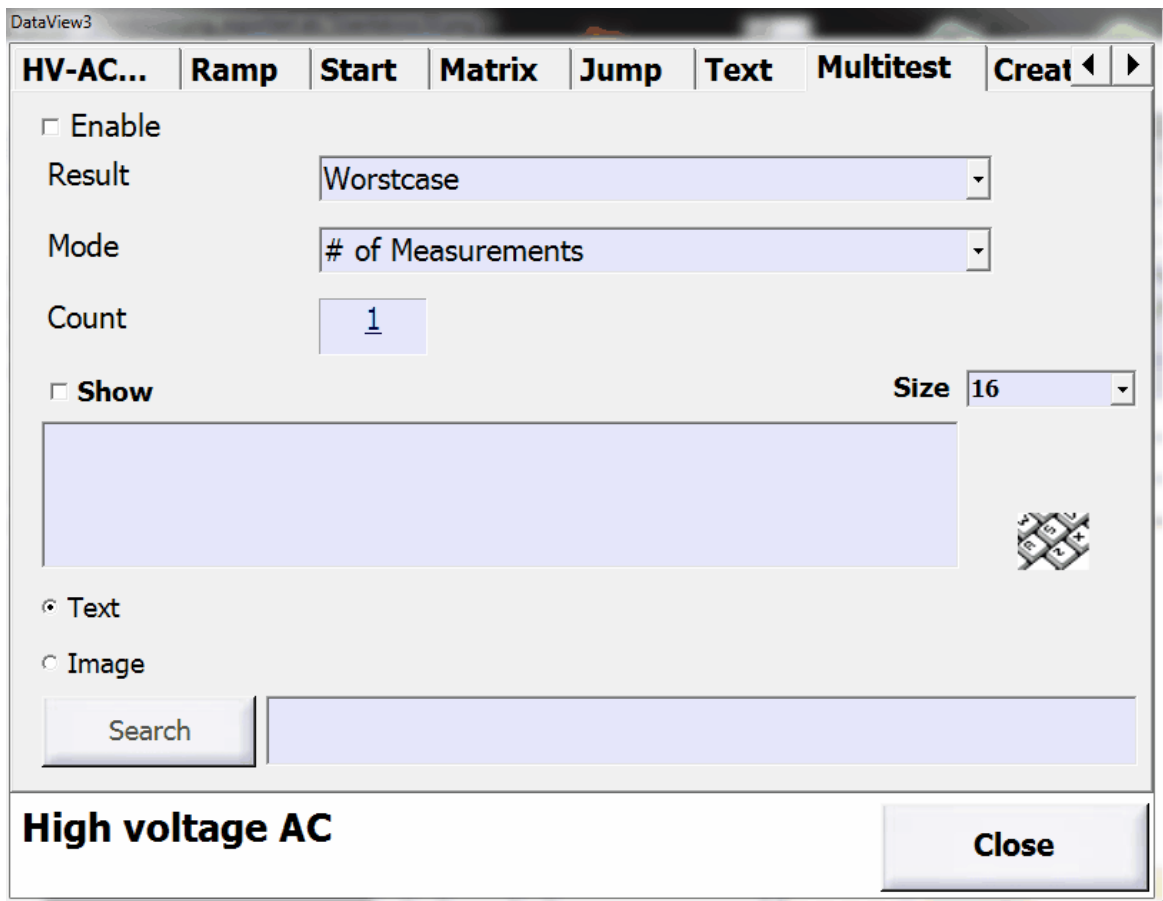
Will an advice been shown on **Error** it will be visible until the dialog will be confirmed.

On **Cont.** On **Error** you can configure when the advice on **Error** will be confirmed. You can use the same conditions as for start conditions.

On variant **ATS400 X4** there isn't the possibility to use pictures. The corresponding controls aren't visible.

3.3.1.6 Multitest

On this property page the multi test parameters are configured.



The screenshot shows a dialog box titled "DataView3" with a tabbed interface. The "Multitest" tab is selected. The dialog contains the following elements:

- Enable:** A checkbox that is currently unchecked.
- Result:** A dropdown menu with "Worstcase" selected.
- Mode:** A dropdown menu with "# of Measurements" selected.
- Count:** A text input field containing the value "1".
- Show:** A checkbox that is currently unchecked.
- Size:** A dropdown menu with "16" selected.
- Text/Image Selection:** Two radio buttons, "Text" (selected) and "Image".
- Search:** A button labeled "Search" next to a large empty text input field.
- Footer:** The text "High voltage AC" on the left and a "Close" button on the right.

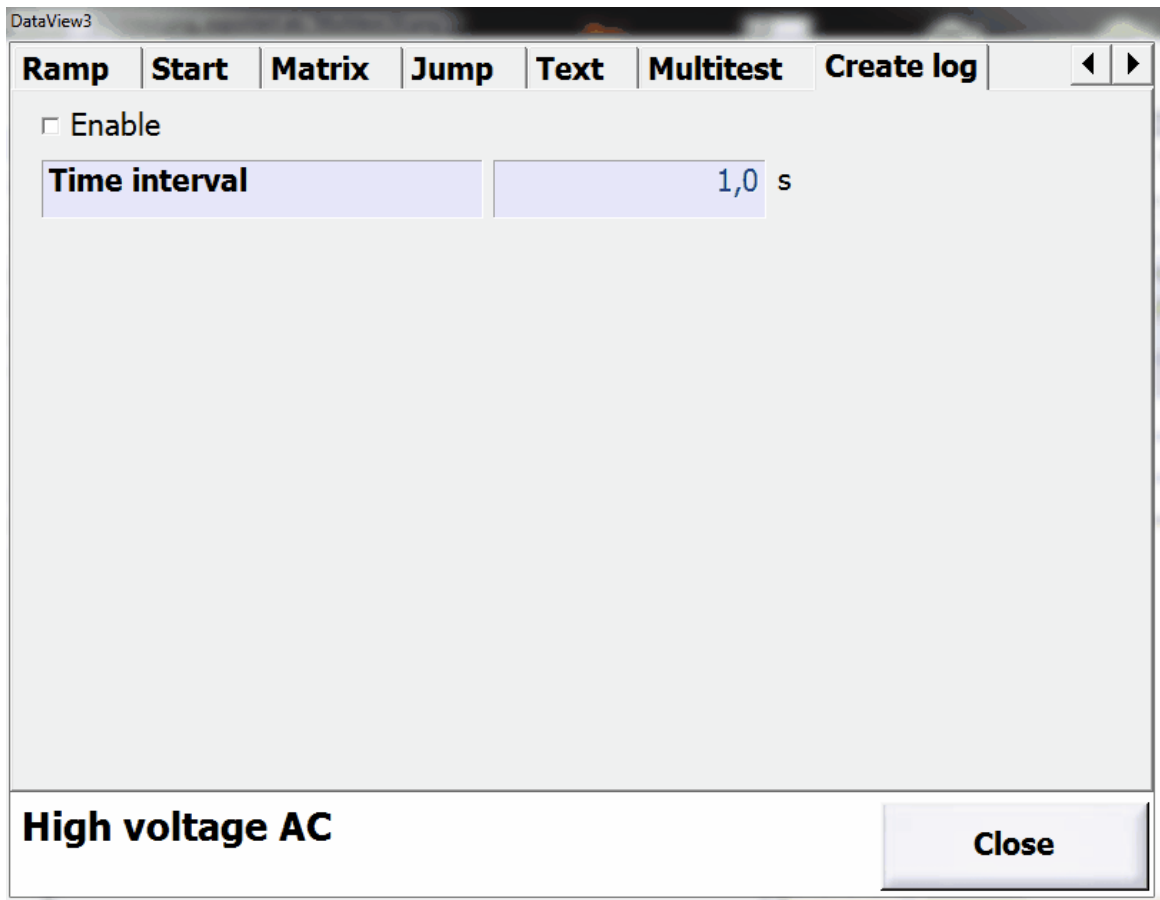
To summarize multiple test points into one result, e. g. the number of test points is different for different units under test, you can use **Multitest**.

Parameter	Description
Enable	Enables multi test behaviour.
Result	Configures how the results of the test are summarized. Worstcase : The worst measurement will be used.
Mode	Configures the end of a multi test. # of Measurements : You must have the number of tests with result passed as given in Count . Button Pass : The multi test ends when the pass button is pressed. It doesn't matter if this is coming from the front of the ATS400 , the button on the screen or from the ETL-Interface.
Count	Configures how much tests must be done when used in mode # of Measurements . This parameter is only visible when in Mode the value # of Measurements is selected.
Pass button visible	Configures to show the button Pass on the screen. This parameter is only visible when in Mode the value Button Pass is selected.
Show	Configures that a user advice will be shown between two tests of a multi test.
Size	Configures the height of the font of the text of the user advice.
	Text of the user advice.
Text	The text will be shown as user advice.
Image	A picture will be shown as user advice.
Search	Shows the file select dialog to select the picture. This button is available when Image is selected.

On variant **ATS400 X4** there isn't the possibility to use pictures. The corresponding controls aren't visible.

3.3.1.7 Create log

On this property page the logging is configured.



To log measurements during a test logging can be activated.

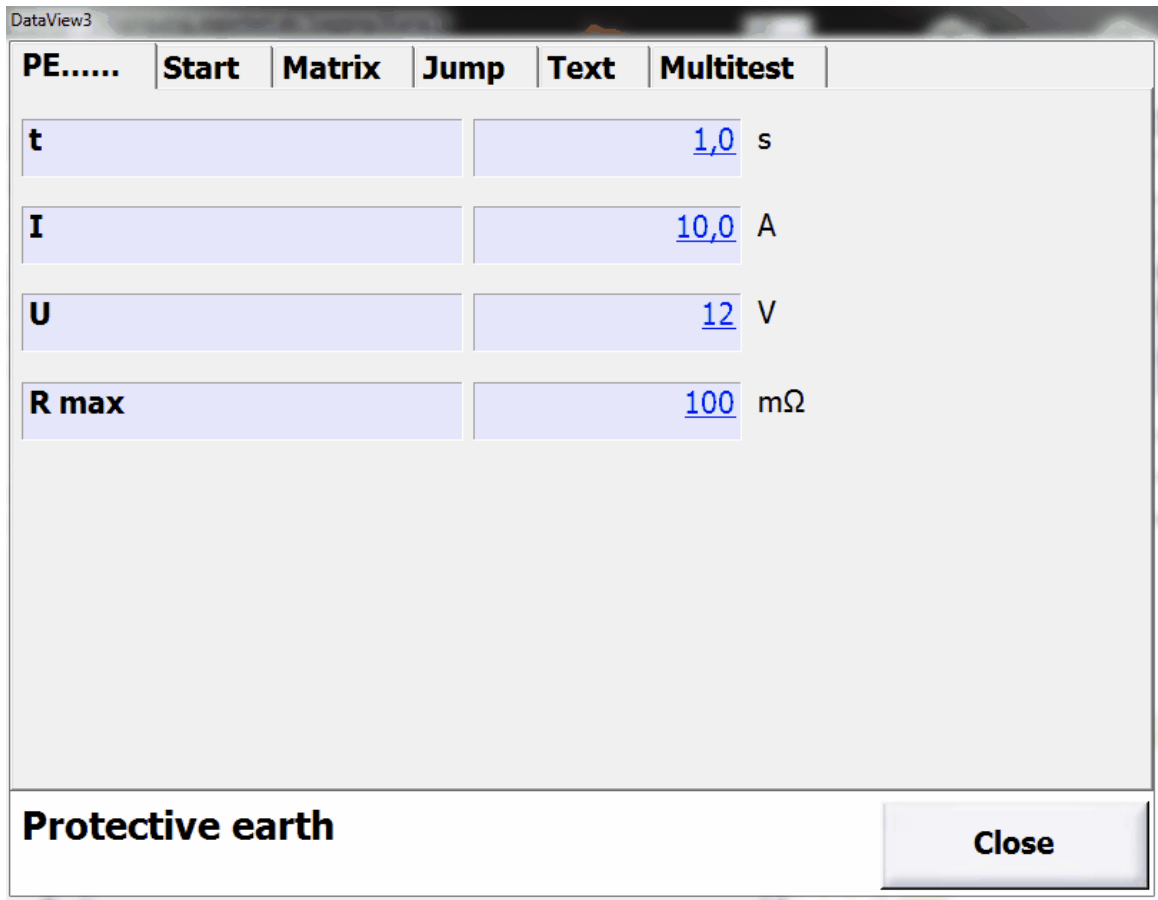
Parameter	Description
Enable	Activates the logging.
Time interval	Configures how often measurements are stored.

For each test step a file will be created. The rule for the base name is according to the result file. The number of the test step is added to the base name.

The file is a test file in csv-format and can be imported to other applications. The exact format depends on the test type.

3.3.2 Protective Earth test

The protective earth test will be configured using the following dialog.



DataView3

PE..... | **Start** | **Matrix** | **Jump** | **Text** | **Multitest**

t s

I A

U V

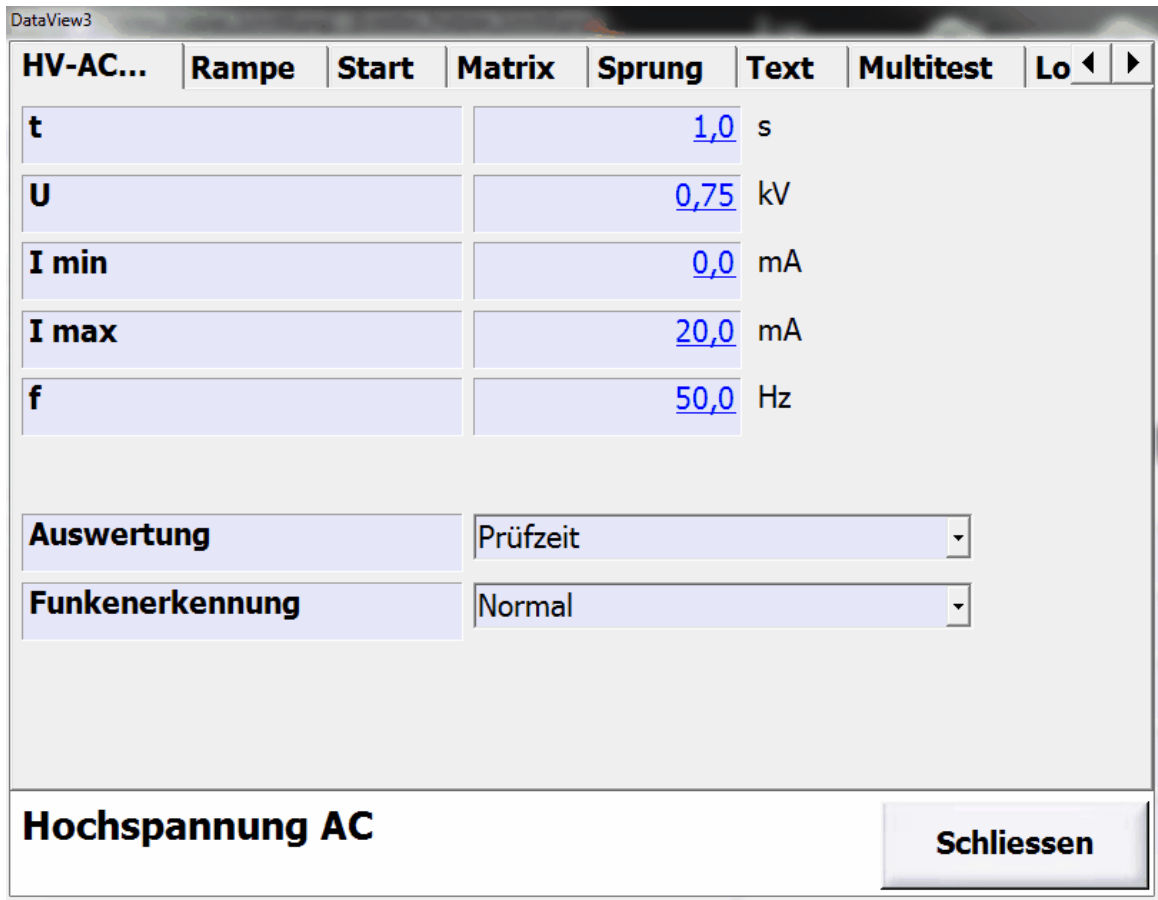
R max mΩ

Protective earth Close

Parameter	Description
t	Test time in seconds. The test time is the time the current is flowing through the unit under test.
I	Test current in A. This current is flowing through the unit under test for the test time.
U	Open circuit voltage in Volt. This voltage is applied to the unit under test or the contacts in the case no current is flowing through the unit under test.
R max	Maximum allowed resistance for evaluation.

3.3.3 High voltage AC

The high voltage AC test will be configured using the following dialog.



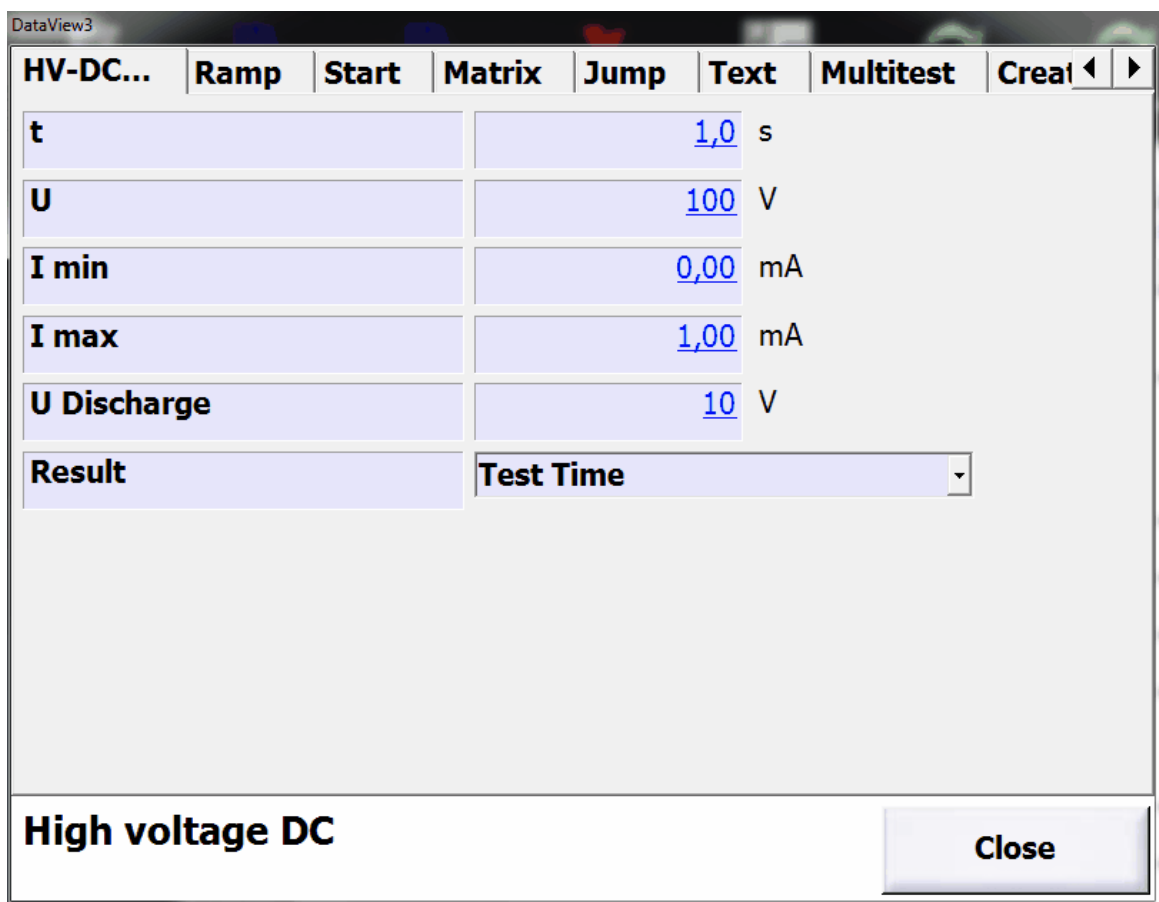
Parameter	Description
t	Test time in seconds. The test time is the time the testing voltage is applied to the unit under test. The times for powering on and off and the ramp times are not part of the test time.
U	Testing voltage in kilovolt. This voltage is applied to the unit under test for the test time.
I min	Minimum test current. This current must be flowing through the unit under test during the test time. If the current falls below this limit the test is evaluated as not ok.
I max	Maximum test current. The current must not exceed this limit during the test time. If the current exceeds this limit the test will be evaluated as not ok.
f	Frequency in Hertz. Frequency of the testing voltage.
Result	You can select how the evaluation is done. Selecting Test

Parameter	Description
	Time the test ends after the test time. Selecting Start-Button the evaluation ends with pressing the start button again.
Sparc detection	<p>This parameter will only be visible when the ATS400 is supporting this function.</p> <p>You can select if spark detection is disabled resp. how sensitive it is. Spark detection evaluates the break down of the measured voltage regarding to size and gradient. Selecting Off spark detection is disabled. Selecting Coarse a large spark will be detected, selecting Normal the sensitivity is medium and selecting Fine small sparks will be detected.</p>

Additional informations about the behaviour of the high voltage test, the error messages and the evaluation you will find in the [Reference](#).

3.3.4 High voltage DC

The high voltage DC test will be configured using the following dialog.



High voltage DC

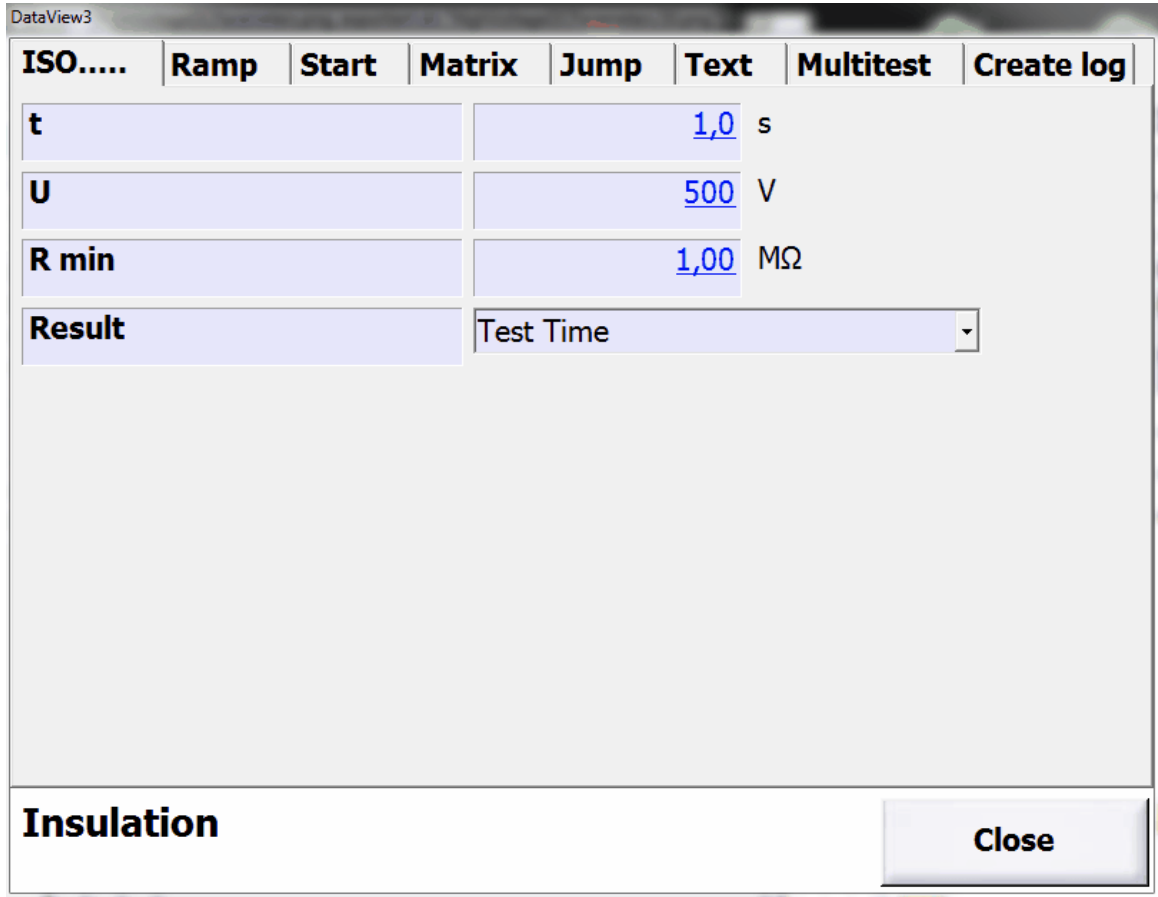
Close

Parameter	Description
t	Test time in seconds. The test time is the time the testing voltage is applied to the unit under test. The times for powering on and off and the ramp times are not part of the test time.
U	Testing voltage in Volt. This voltage is applied to the unit under test for the test time.
I min	Minimum test current. This current must be flowing through the unit under test during the test time. If the current falls below this limit the test is evaluated as not ok.
I max	Maximum test current. The current must not exceed this limit during the test time. If the current exceeds this limit the test will be evaluated as not ok.
Result	You can select how the evaluation is done. Selecting Test Time the test ends after the test time. Selecting Start-Button the evaluation ends with pressing the start button again.
U Discharge	Discharge voltage is the voltage which must be fallen short of after the test before the test step ends.
Sparc detection	<p>This parameter will only be visible when the ATS400 is supporting this function.</p> <p>You can select if spark detection is disabled resp. how sensitive it is. Spark detection evaluates the break down of the measured voltage regarding to size and gradient. Selecting Off spark detection is disabled. Selecting Coarse a large spark will be detected, selecting Normal the sensitivity is medium and selecting Fine small sparks will be detected.</p>

Additional informations about the behaviour of the high voltage test, the error messages and the evaluation you will find in the [Reference](#).

3.3.5 Insulation test

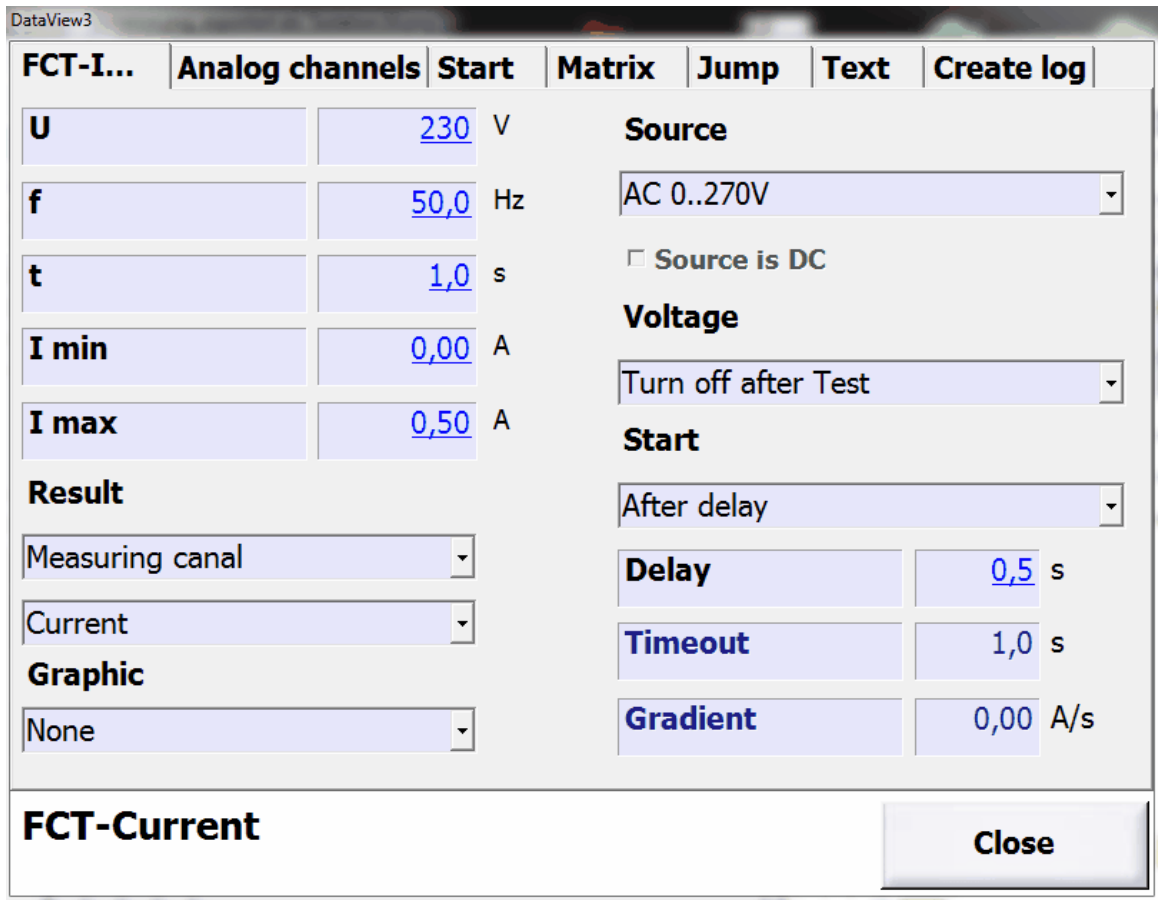
The insulation test will be configured using the following dialog.



Parameter	Description
t	Test time in seconds. The test time is the time the testing voltage is applied to the unit under test. The times for powering on and off and the ramp times are not part of the test time.
U	Testing voltage in Volt. This voltage is applied to the unit under test for the test time.
R min	Minimung allowed resistance for the evaluation.
Result	You can select how the evaluation is done. Selecting Test Time the test ends after the test time. Selecting Start-Button the evaluation ends with pressing the start button again.

3.3.6 Function test

The function test will be configured using the following dialog.



FCT-I... | **Analog channels** | **Start** | **Matrix** | **Jump** | **Text** | **Create log**

U V

f Hz

t s

I min A

I max A

Source

☐ **Source is DC**

Voltage

Start

Delay s

Timeout s

Gradient A/s

Result

Graphic

FCT-Current **Close**

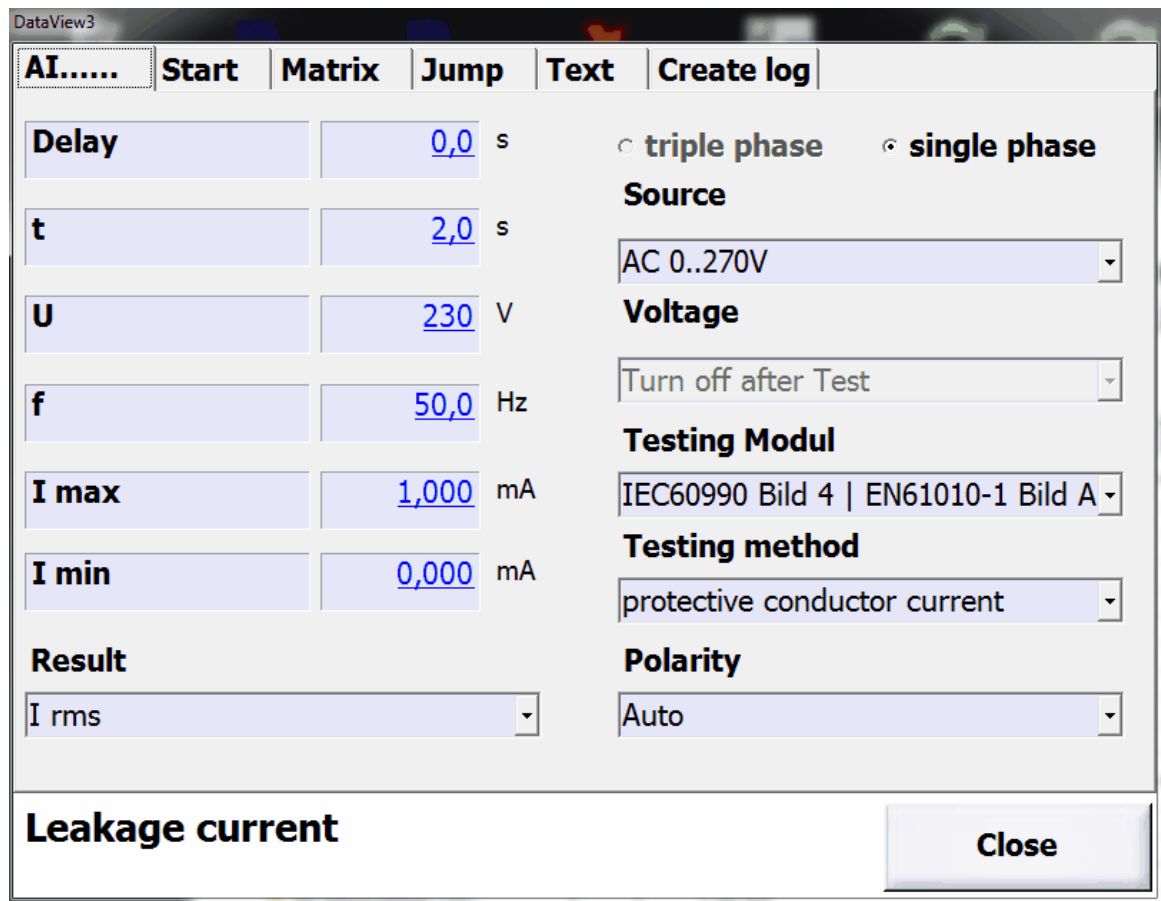
Parameter	Description
U	Test voltage in Volt. This voltage is applied to the unit under test. This parameter will be ignored if the source is external.
f	Frequency of the test voltage. This parameter will be ignored if the source is a direct current source or external.
t	Test time in seconds. The test time is the time the evaluation is done against the limits. This time starts after the conditions for evaluation start is meet. This parameter will be ignored when Button Pass/Fail is selected.
I min	Minimum current. Is the current below this limit the test is evaluated as failed. This parameter will be shown when Current is selected as measuring channel. This parameter will be ignored when Button Pass/Fail is selected.
I max	Maximum current. Is the current above this limit the test is

Parameter	Description
	evaluated as failed. This parameter will be shown when Current is selected as measuring channel. This parameter will be ignored when Button Pass/Fail is selected.
U min	Minimum voltage. Is the voltage below this limit the test is evaluated as failed. This parameter will be shown when Current is not selected as measuring channel. This parameter will be ignored when Button Pass/Fail is selected.
U max	Maximum voltage. Is the voltage above this limit the test is evaluated as failed. This parameter will be shown when Current is not selected as measuring channel. This parameter will be ignored when Button Pass/Fail is selected.
Result	Here are two entries possible. In the the upper drop down box the method can been choosen. You can select between Measuring canal und Button Pass/Fail . In the lower drop down box the channel for evaluation is selected when Measuring canal is selected. Is Button Pass/Fail selected as method no evaluation is done and the parameters I min , I max , U min , U max and the paremeters for Start will be ignored.
Graphic	You can select if a graphic will be diplayed and if it will be stored. Selecting None no graphic will be displayed and stored. Selecting Show only the graphic will only be displayed. Selecting Show and Save the graphic will be shown and saved.
Source	Source for supplying the unit under test. The possible sources are dependent from your device. Is an external source selected you can configure if the source is a direct current source with the checkbox Source is DC .
Voltage	Drop down box how the suppliment of the unit under test is to handle. Selecting Turn off after test the voltage will be turn off when test has finished. Selecting Leave on after test the voltage will remain on when the test has finished. Selecting Turn off doesn't do a test. Only the voltage will be turned off. Selecting Turn off if test N.I.O. the voltage will be turned off when the test is evaluated as failed. Selecting Turn on doesn't do a test. Only the voltage will be turned on.
Start	Setting when the evaluation against the limits will start. This parameter and the dependent parameters will be ignored when Result ist set to Button Pass/Fail . With the setting After Delay the evaluation begins after the time in Delay has passed. With the seting > min the evaluation begins when the measurement is above the limit in I min rsp. U min . With the setting Delay and > min the

Parameter	Description
	time in Delay must have passed and the measurement is above the limit in I min resp. U min . With the setting Gradient the gradient of the measurements must have fallen below the value in Gradient . With the setting < max the evaluation begins when the measurement has fallen below the limit in I max resp. U max . With the setting Delay und < max the time in Delay must have passed and the measurement is fallen below the limit in I max resp. U max . With the setting > min , Gradient and < max the evaluation must start before expiring the time in Timeout . Otherwise the test is evaluated as failed.

3.3.7 Leakage current test

The leakage current test will be configured using the following dialog.



These parameters are relevant for checking.

Parameter	Description
Delay	This parameter is not used.

Parameter	Description
t	Time used for checking against the limits. If you are using a polarity with automatic change the time is valid for each polarity.
I max	Maximum allow leakage current.
I min	Minimum leakage current which must be reached.
Result	Type of the channel. There are the following selections: I AC rms : Effective value of the AC-fraction I DC : DC-fraction of the leakage current I min : Lowest value of the current leakage current I max : Highest value of the current leakage current I rms : Effective value of the DC- and AC-fraction

These parameters are relevant for supplying the unit under test.

Parameter	Description
U	Voltage the device under test will be supplied.
f	Frequency of the supply voltage for the device under test.
triple phase	The unit under test is supplied with triple phase. This radio button is active only on a test rig configured for such units under test.
single phase	The unit under test is supplied with a single phase.
Source	There are several sources available. The sources are explained in detail in chapter Supply options . Source for the supply of the device under test. Mains voltage : The supply is taken from the mains voltage of the ATS400. AC 0..270V : The supply is taken from the power converter of the ATS400. External : The supply is taken from an external source.
Voltage	Defines how after a test the supply for the device under test is handled. Turn off after Test : After the test the supply will be turned off. This setting is fixed and cannot be changed.

These parameters are relevant for the test setup.

Parameter	Description
Testing Modul	There are several testing modules available. the testing modules are explained in detail in chapter Testing modules . IEC 60990 Pic 3 : Unweighted touch current IEC 60990 Pic 4 : Touch current weighted for reaction IEC 60990 Pic 5 : Touch current weighted for to let loose

Parameter	Description																
	IEC 60601 Basic : Unweighted leakage current IEC 60601 Pic 12 : Weighted leakage current																
Testing method	<p>Selects which testing method will be used.</p> <p>Protective conductor current: The current in the protective conductor will be measured. This method is named earth leakage current in EN 60601-1:2013-12.</p> <p>Touch current: The current over the housing will be measured. For this measurement the PE-probe must be used. This method is named contact current in EN 60601-1:2013-12.</p>																
Polarity	<p>Determines the connection of the unit under test and the test setup. The contacting depends from the testing method. The contacting for the protective conductor current are explained in chapter Polarity for protective conductor, for the touch current in chapter Polarity for touch current.</p> <p>In some selections the word „Auto“ is used. With this setting the change of the polarity is done automatically within one test step.</p> <p>Using testing method Protective conductor current following connections are available:</p> <p>Auto</p> <table border="1"> <tr> <td>n/S1</td><td>p/S5</td></tr> <tr> <td>Closed</td><td>Normal/Switched</td></tr> </table> <p>L1->PE</p> <table border="1"> <tr> <td>n/S1</td><td>p/S5</td></tr> <tr> <td>Closed</td><td>Normal</td></tr> </table> <p>L2-> PE</p> <table border="1"> <tr> <td>n/S1</td><td>p/S5</td></tr> <tr> <td>Closed</td><td>Switched</td></tr> </table> <p>Auto with SFC</p> <table border="1"> <tr> <td>n/S1</td><td>p/S5</td></tr> <tr> <td>Open</td><td>Normal/Switched</td></tr> </table>	n/S1	p/S5	Closed	Normal/Switched	n/S1	p/S5	Closed	Normal	n/S1	p/S5	Closed	Switched	n/S1	p/S5	Open	Normal/Switched
n/S1	p/S5																
Closed	Normal/Switched																
n/S1	p/S5																
Closed	Normal																
n/S1	p/S5																
Closed	Switched																
n/S1	p/S5																
Open	Normal/Switched																

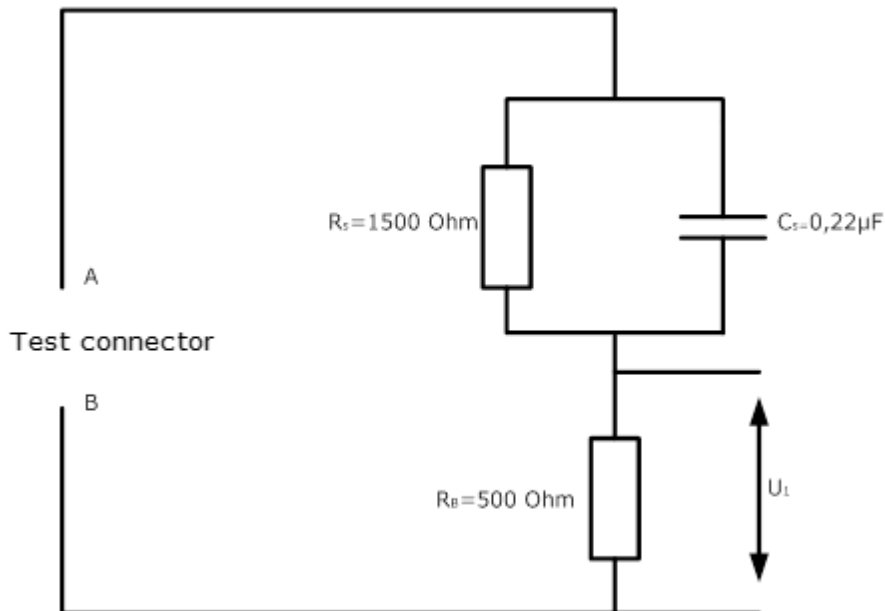
Parameter	Description																																						
	<p><u>L1->PE with SFC</u></p> <table><tr><td>n/S1</td><td>p/S5</td></tr><tr><td>Open</td><td>Normal</td></tr></table> <p><u>L2-> PE with SFC</u></p> <table><tr><td>n/S1</td><td>p/S5</td></tr><tr><td>Open</td><td>Switched</td></tr></table> <p>Using testing method touch current following connections are available:</p> <p><u>Auto</u></p> <table><tr><td>n/S1</td><td>p/S5</td><td>e/S7</td></tr><tr><td>Closed</td><td>Normal/Switched</td><td>Closed</td></tr></table> <p><u>L1->PE</u></p> <table><tr><td>n/S1</td><td>p/S5</td><td>e/S7</td></tr><tr><td>Closed</td><td>Normal</td><td>Closed</td></tr></table> <p><u>L2-> PE</u></p> <table><tr><td>n/S1</td><td>p/S5</td><td>e/S7</td></tr><tr><td>Closed</td><td>Switched</td><td>Closed</td></tr></table> <p><u>Auto with SFC</u></p> <table><tr><td>n/S1</td><td>p/S5</td><td>e/S7</td></tr><tr><td>Open</td><td>Normal/Switched</td><td>Closed</td></tr></table> <p><u>L1->PE with SFC</u></p> <table><tr><td>n/S1</td><td>p/S5</td><td>e/S7</td></tr><tr><td>Open</td><td>Normal</td><td>Closed</td></tr></table>	n/S1	p/S5	Open	Normal	n/S1	p/S5	Open	Switched	n/S1	p/S5	e/S7	Closed	Normal/Switched	Closed	n/S1	p/S5	e/S7	Closed	Normal	Closed	n/S1	p/S5	e/S7	Closed	Switched	Closed	n/S1	p/S5	e/S7	Open	Normal/Switched	Closed	n/S1	p/S5	e/S7	Open	Normal	Closed
n/S1	p/S5																																						
Open	Normal																																						
n/S1	p/S5																																						
Open	Switched																																						
n/S1	p/S5	e/S7																																					
Closed	Normal/Switched	Closed																																					
n/S1	p/S5	e/S7																																					
Closed	Normal	Closed																																					
n/S1	p/S5	e/S7																																					
Closed	Switched	Closed																																					
n/S1	p/S5	e/S7																																					
Open	Normal/Switched	Closed																																					
n/S1	p/S5	e/S7																																					
Open	Normal	Closed																																					

Parameter	Description		
	<u>L2-> PE with SFC</u>		
	n/S1	p/S5	e/S7
	Open	Switched	Closed
	<u>SFC PE Open Auto</u>		
	n/S1	p/S5	e/S7
	Closed	Normal/Switched	Open
	<u>SFC PE Open</u>		
	n/S1	p/S5	e/S7
	Closed	Normal	Open
	<u>SFC PE Open reverse</u>		
	n/S1	p/S5	e/S7
	Closed	Switched	Open

3.3.7.1 Testing modules

IEC60990 Pic 3

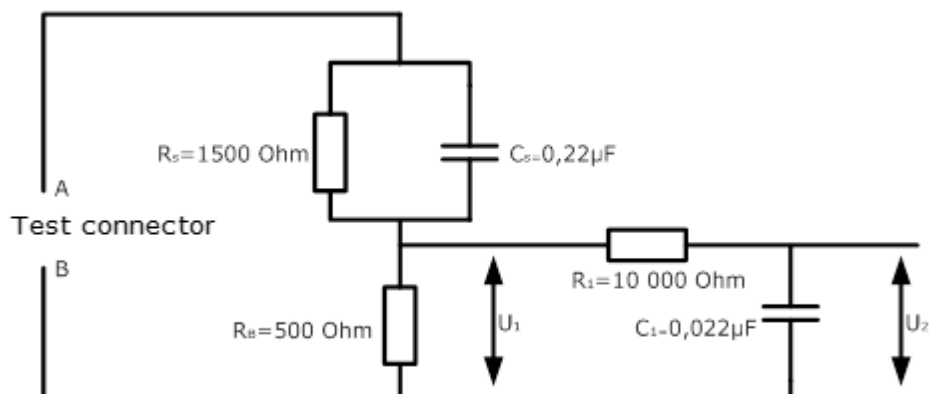
Measuring circuit for unweighted touch current (corresponds EN61010-1 Pic A.3)



This measuring model emulates the impedance of the human body. This allows to measure the current flowing through a human body touching the unit under test in a similar way.

IEC60990 Pic 4

Measuring circuit for touch current weighted for reaction (corresponds EN61010 Pic A1)

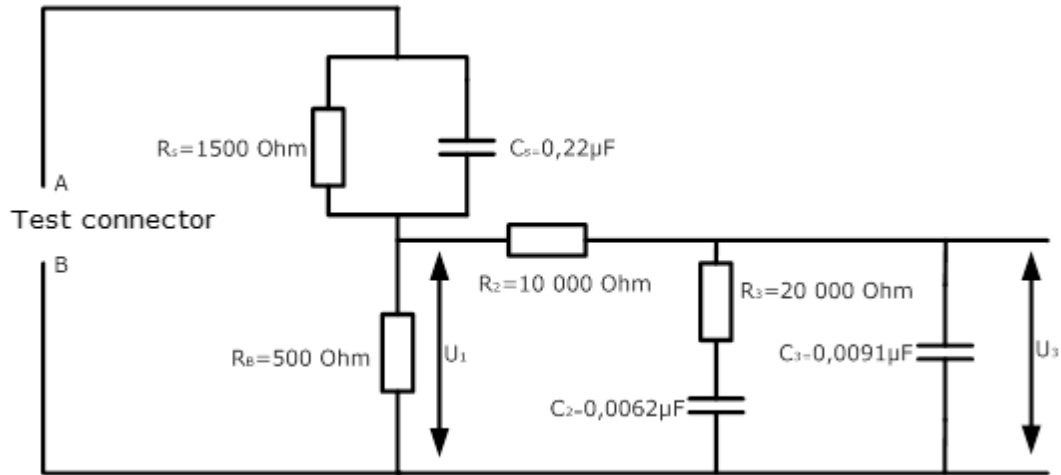


Reaction in the human body results from the current flowing within the body. The measuring circuit according to picture 4 emulates the impedance of the body and

weight the reaction depended from the current causing an unwanted reaction.

IEC60990 Pic 5

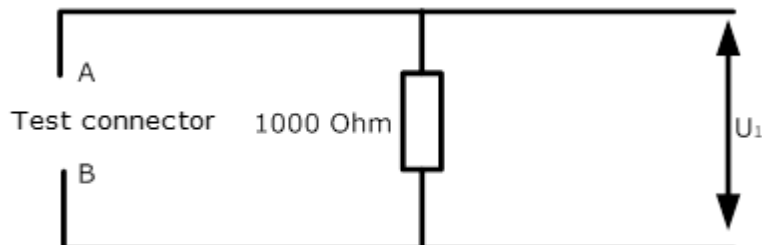
Measuring circuit for touch current weighted for let loose



The inability to let loose the unit under test results from a current flow within the human body (e.g. through muscles). the influence of the frequency for let losse is different from the influence for reaction. this is significant for frequencies above 1 kHz.

IEC 60601 Basic

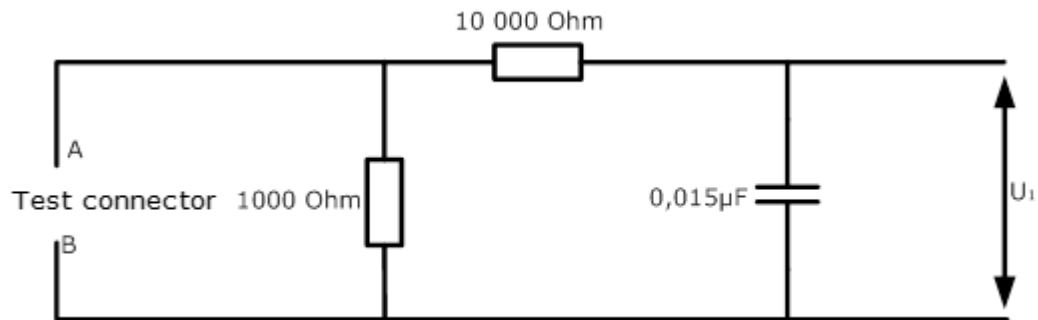
Measuring circuit



This measuring circuit corresponds to the requirement of DIN EN 60601-1:2013-12 chapter 8.7.3 part e.

IEC 60601 Pic 12

Measuring circuit with weighting

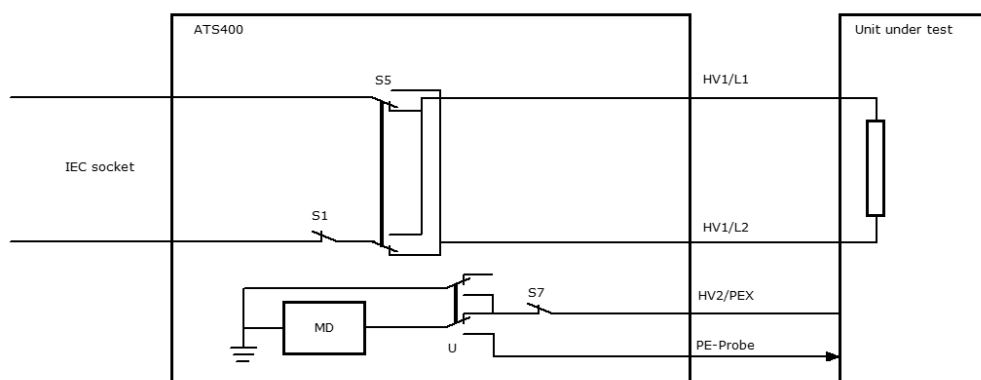


This measuring circuit corresponds to the requirement of DIN EN 60601-1:2013-12 chapter 8.7.3 part a - d.

3.3.7.2 Supply options

Mains voltage

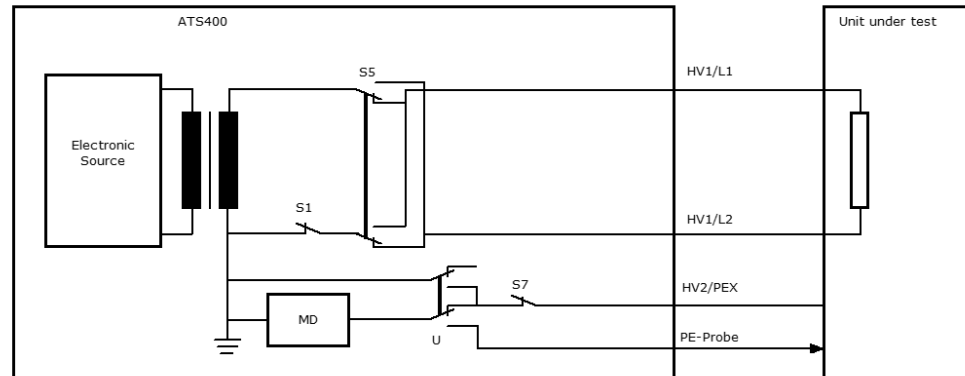
The unit under test is supplied from the mains voltage of the ATS400.



There is no isolation from the mains voltage.

AC 0...270V

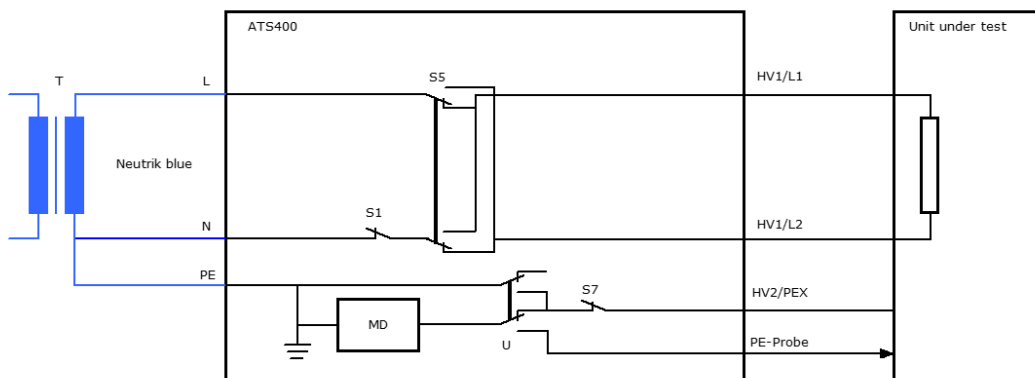
The unit under test is supplied by the power converter in the ATS400.



The isolation is within the ATS400.

Extern

The unit under test is supplied over an external input.

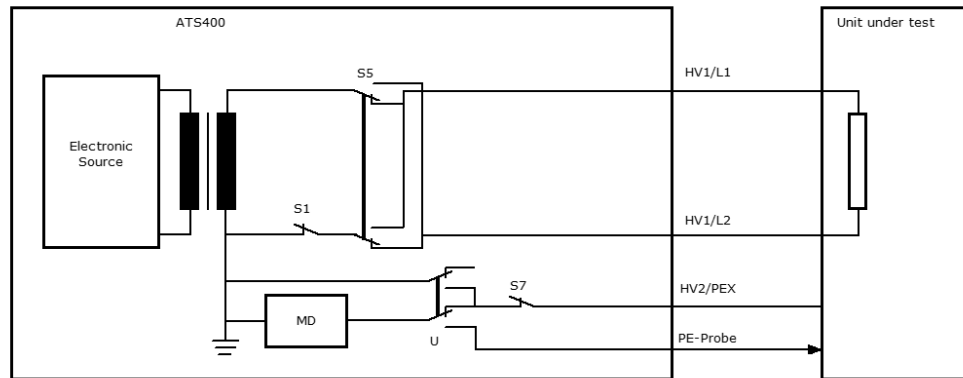


An insulation can be done by an external transformer.

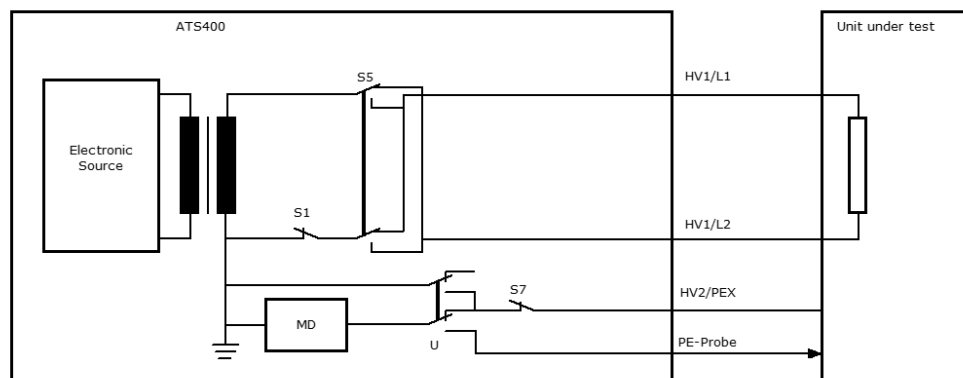
3.3.7.3 Polarity for protective conductor

The following polarities are available with the measuring method **protective conductor current**.

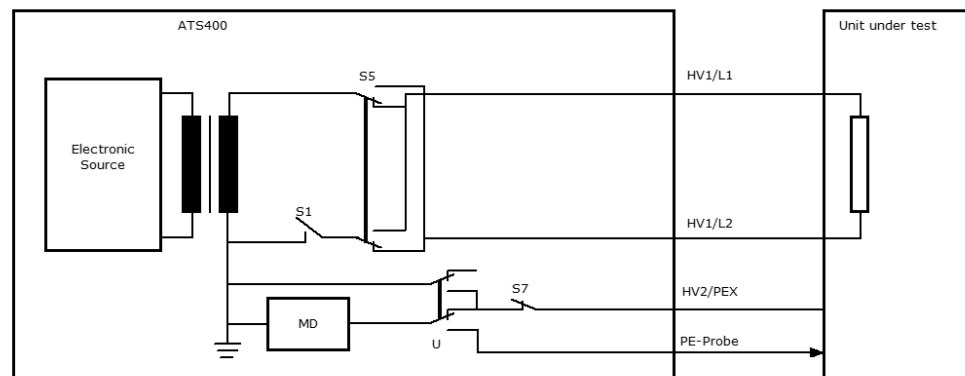
L1->PE resp. 1. phase **Auto**



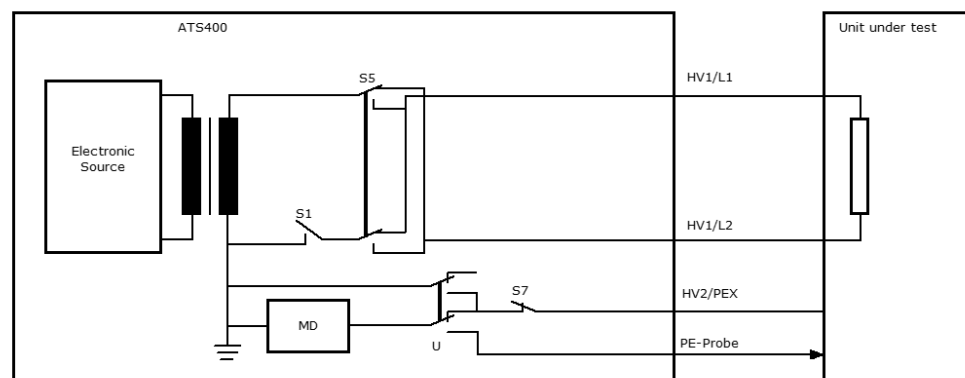
L2->PE resp. 2. phase **Auto**



L1->PE with SFC resp. 1. phase Auto with SFC



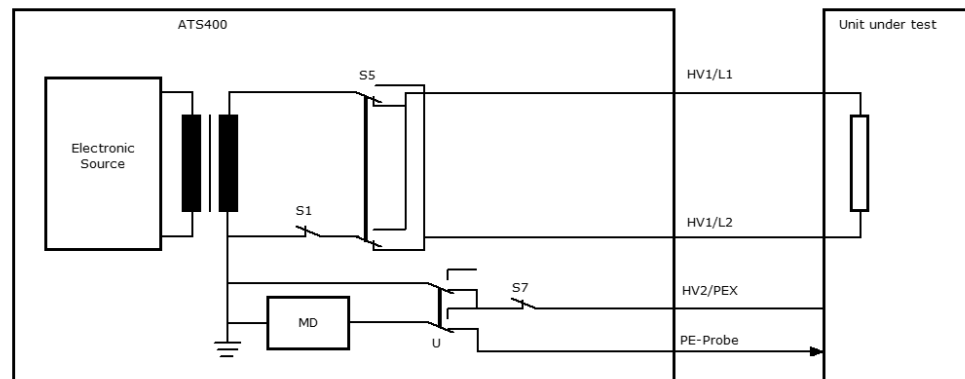
L2->PE with SFC reaph. 2. phase Auto with SFC



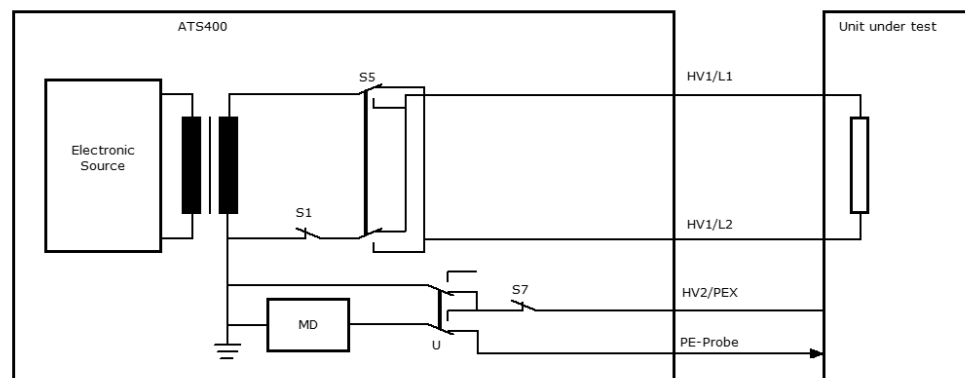
3.3.7.4 Polarity for touch current

The following polarities are available with the measuring method **touch current**.

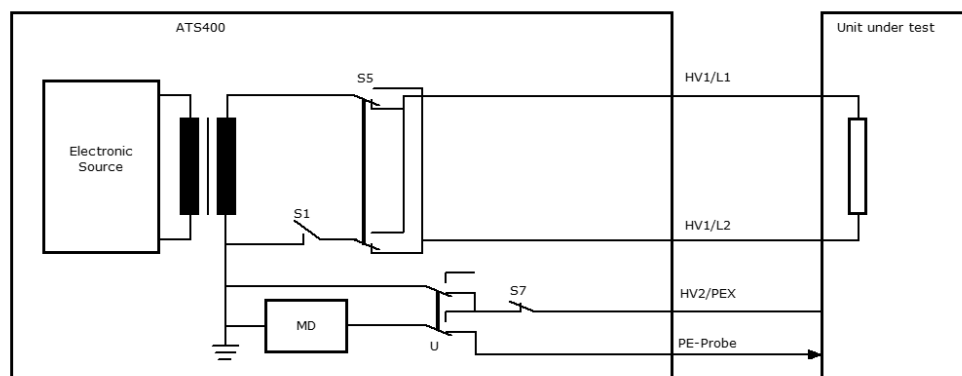
L1->PE resp. 1. phase **Auto**



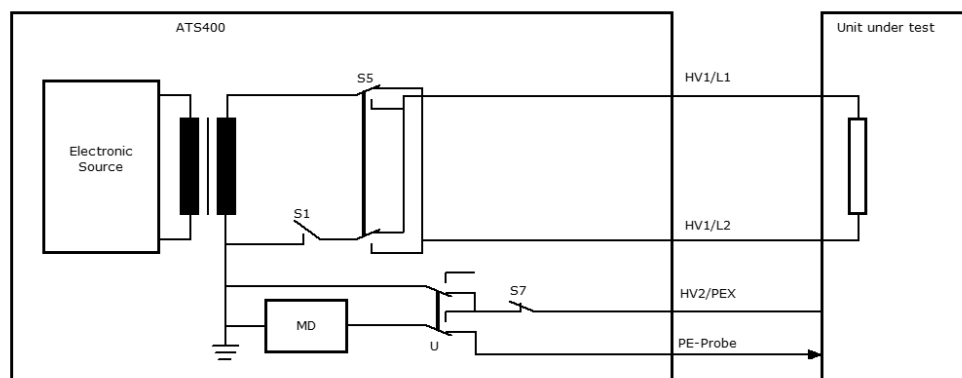
L2->PE resp. 2. phase **Auto**



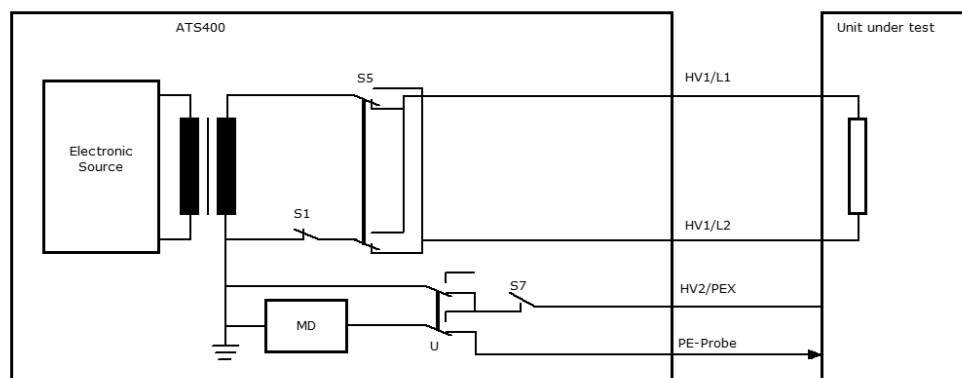
L1->PE with Auto resp. 1. phase Auto with Auto



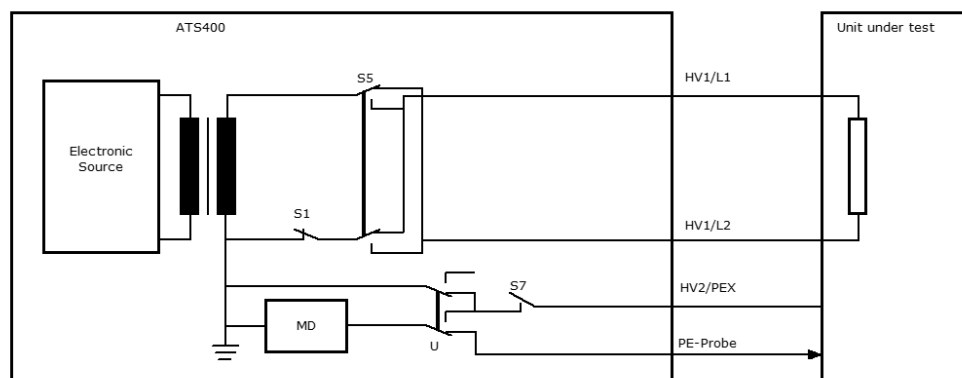
L2->PE with Auto resp. 2. phase Auto with Auto



SFC PE Open resp. 1. phase SFC PE Open Auto



SFC PE Open reverse resp. 2. Phase SFC PE Open Auto



3.3.8 Batch

The batch data will be configured using the following dialog.



Charge data | **Start** | **Jump**

User ☐ from Username

Test equipment ☐ from Workstation Name

Type

Order Number

Serial Number 1 ☐ autoincrement at IO
☐ autoincrement at NIO

Combobox ☐ Type + Serial Number

Pattern ☐ User ☐ Order Number
☐ Test equipment ☐ Serial Number
☐ Type

Batch run **Close**

With the test step [Batch](#) you can enter data for a charge.

The entered data will be stored in the result file and report file and can be printed locally. This test type can be configured individually. In the top most entry field a preset user can be entered or by activating the checkbox [from Username](#) the currently logged in user will be used. Also the entry field [Test equipment](#) can be preset or the name of the workstation can be used. In the both middle fields a type and order number can be preset. To generate a sequential serial number you can preset the first serial number. The serial number can be automatically increased on passed and/or failed tests. In this case the serial number must not contain any alphabetic characters. The start conditions can be set as usual.

Using the additional checkboxes the fields can be provided with [Patterns](#). This allows the input to be checked for plausibility.

3.3.9 Data input

The data input will be configured using the following dialog.



The dialog box, titled "DataView3", contains a tabbed interface with "Element", "Start", and "Jump" tabs. The "Element" tab is active, showing a table with two columns: "Element" and "Default". There are five rows, each with a light blue input field for "Element", a light blue input field for "Default", and a checkbox labeled "Pattern". The "Pattern" checkboxes are currently unchecked. At the bottom of the dialog, there is a "Data input" label and a "Close" button.

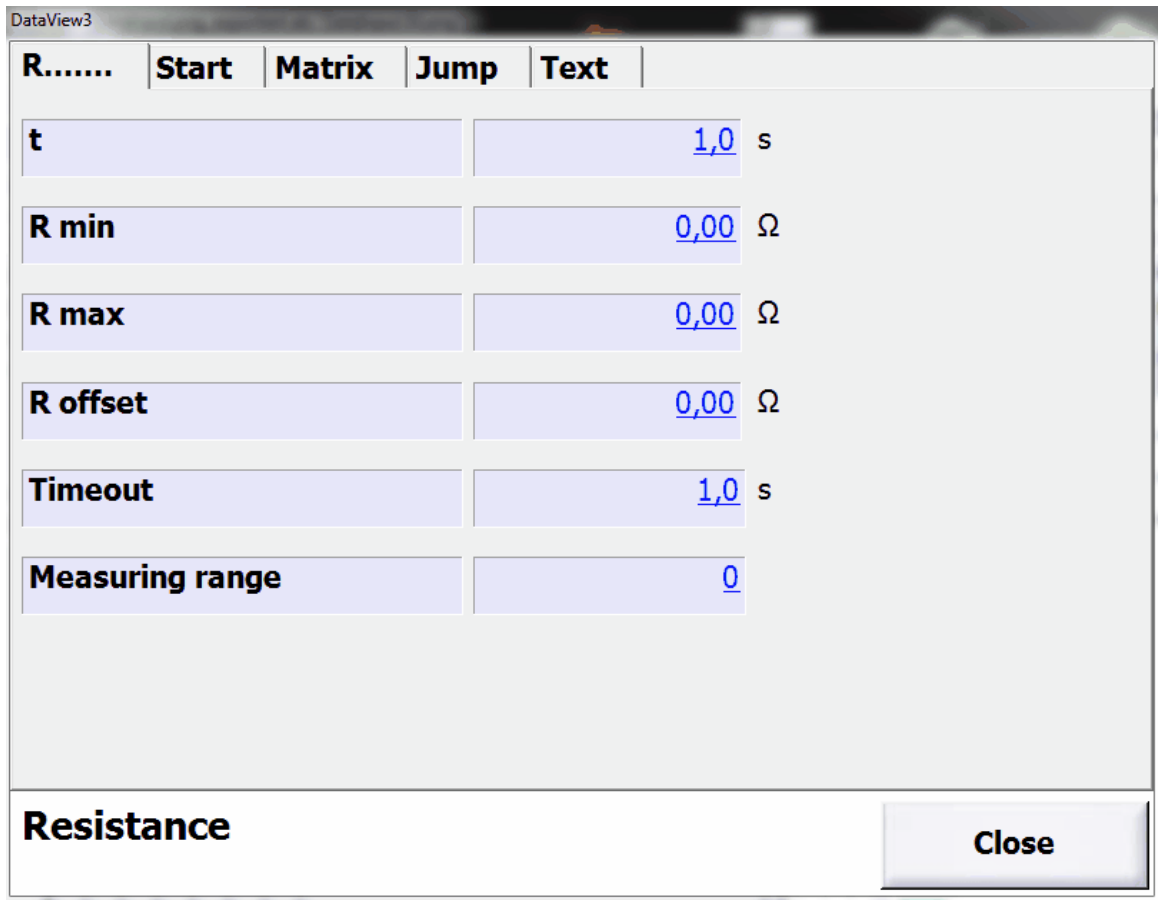
Element	Default	<input type="checkbox"/> Pattern
		<input type="checkbox"/> Pattern
		<input type="checkbox"/> Pattern
		<input type="checkbox"/> Pattern
		<input type="checkbox"/> Pattern
		<input type="checkbox"/> Pattern

Data input Close

You can configure up to 5 fields to enter any data. Is the corresponding checkbox **Pattern** active the preset will be used as a [Pattern](#). This allows the input to be checked for plausibility.

3.3.10 Resistance

The resistance test will be configured using the following dialog.



The screenshot shows a software dialog box titled "DataView3" with several tabs: "R.....", "Start", "Matrix", "Jump", and "Text". The "R....." tab is active, displaying a configuration interface for resistance testing. It includes six input fields, each with a label and a value: "t" (1,0 s), "R min" (0,00 Ω), "R max" (0,00 Ω), "R offset" (0,00 Ω), "Timeout" (1,0 s), and "Measuring range" (0). The values are displayed in blue text. At the bottom of the dialog, there is a label "Resistance" and a "Close" button.

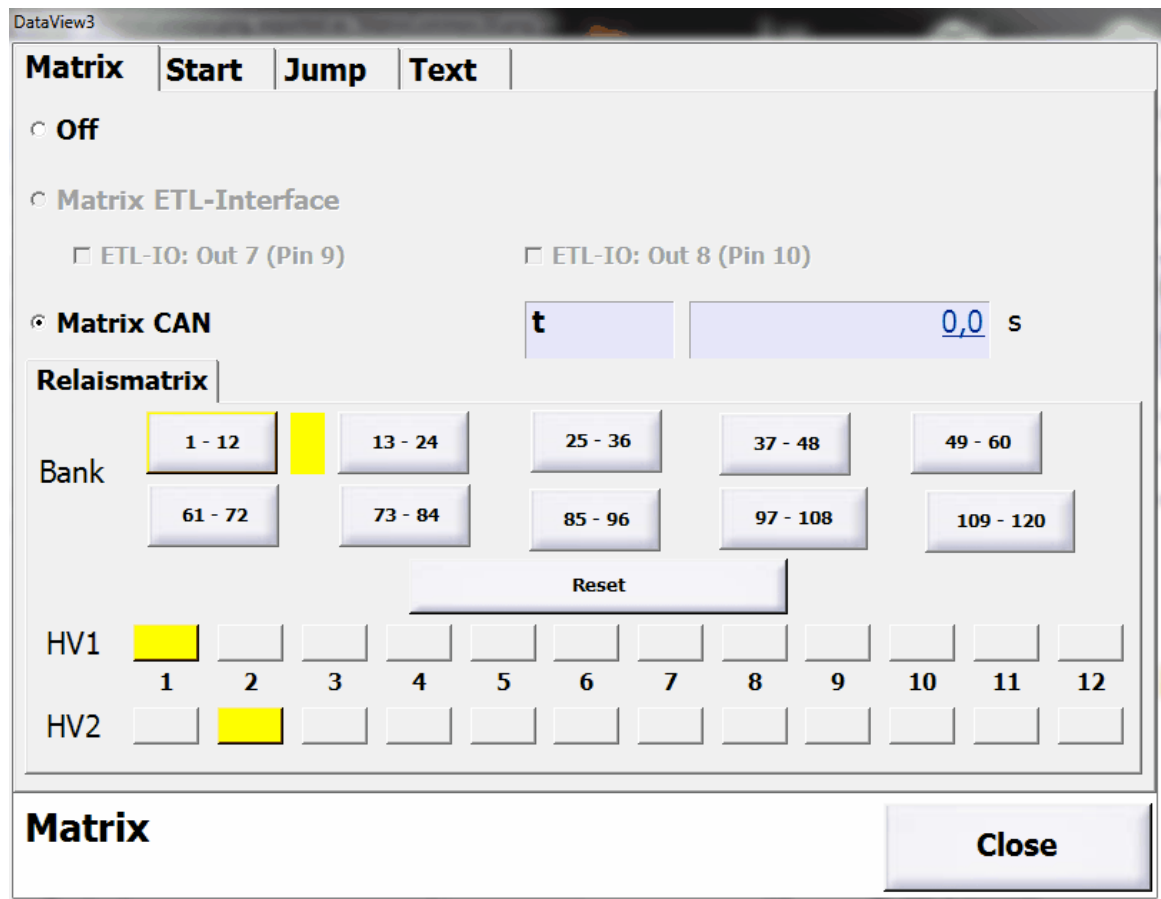
Depending on the configuration and firmware of the **ATS 400** not all parameters will be displayed.

Parameter	Description
t	Test time, the evaluation will be done when it is elapsed.
R min	Lower limit for the evaluation.
R max	Upper limit for the evaluation.
R offset	Offset to compensate the resistance of the measurement cables. This value will be subtracted from the measurement value before evaluation.
Timeout	Time within that valid measurements must be present.
Measuring range	Selection for the measurement range. 0: Automatic

Parameter	Description
	Other values depends from the configuration of the ATS 400 .

3.3.11 Matrix

The matrix test step will be configured using the following dialog.



This step can only be chosen in the case a [configuration file](#) for a matrix is present.

Parameter	Description
Off	Both outputs of the ETL-Interface are off and all relays of a matrix are in default position.
Matrix ETL-Interface	This checkbox is always disabled.
ETL-IO: Out 7 (Pin9)	This checkbox is always disabled.
ETL-IO: Out 8 (Pin10)	This checkbox is always disabled.

Parameter	Description
Matrix CAN	This checkbox can be selected in the case a configuration file for a matrix is existent. If the checkbox is active the matrix can be configured.
t	This time determines how long the step will be executed. This can be used to make external measurements.

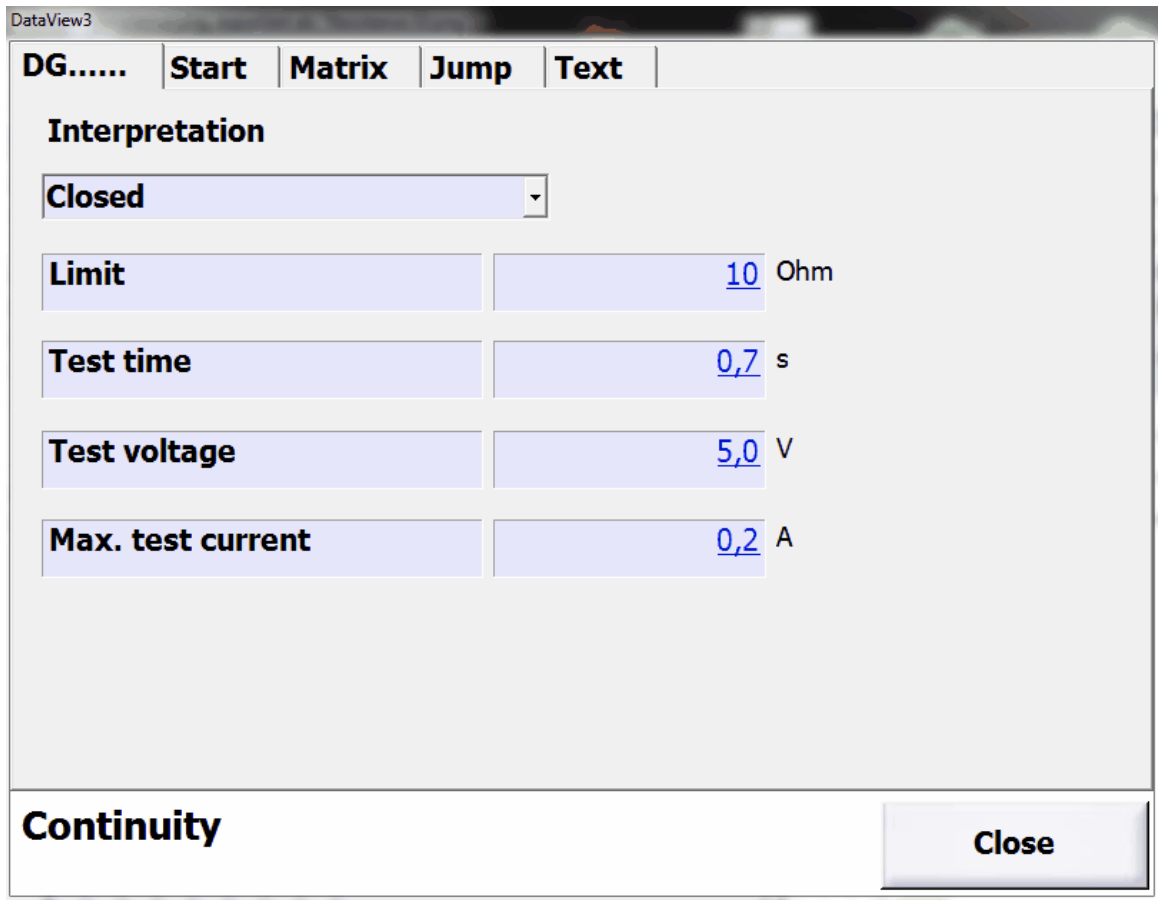
On the sub property page **Relaismatrix** are controls to configure the matrix.

Parameter	Description
Bank	With the buttons it can be switched between the banks of the different outputs. If there is a non default setting in a bank a yellow field will be displayed near the button.
Reset	Sets all outputs to the default setting.
HV1	If a button in this line is set the wire HV1 is switched to the corresponding output.
	In this line the number of the outputs of the active bank are displayed.
HV2	If a button in this line is set the wire HV2 is switched to the corresponding output.

In the example above the output 1 is connected to wire HV1 and output 2 is connected to wire HV2.

3.3.12 Continuity test

The continuity test will be configured using the following dialog.



Interpretation

Closed

Limit 10 Ohm

Test time 0,7 s

Test voltage 5,0 V

Max. test current 0,2 A

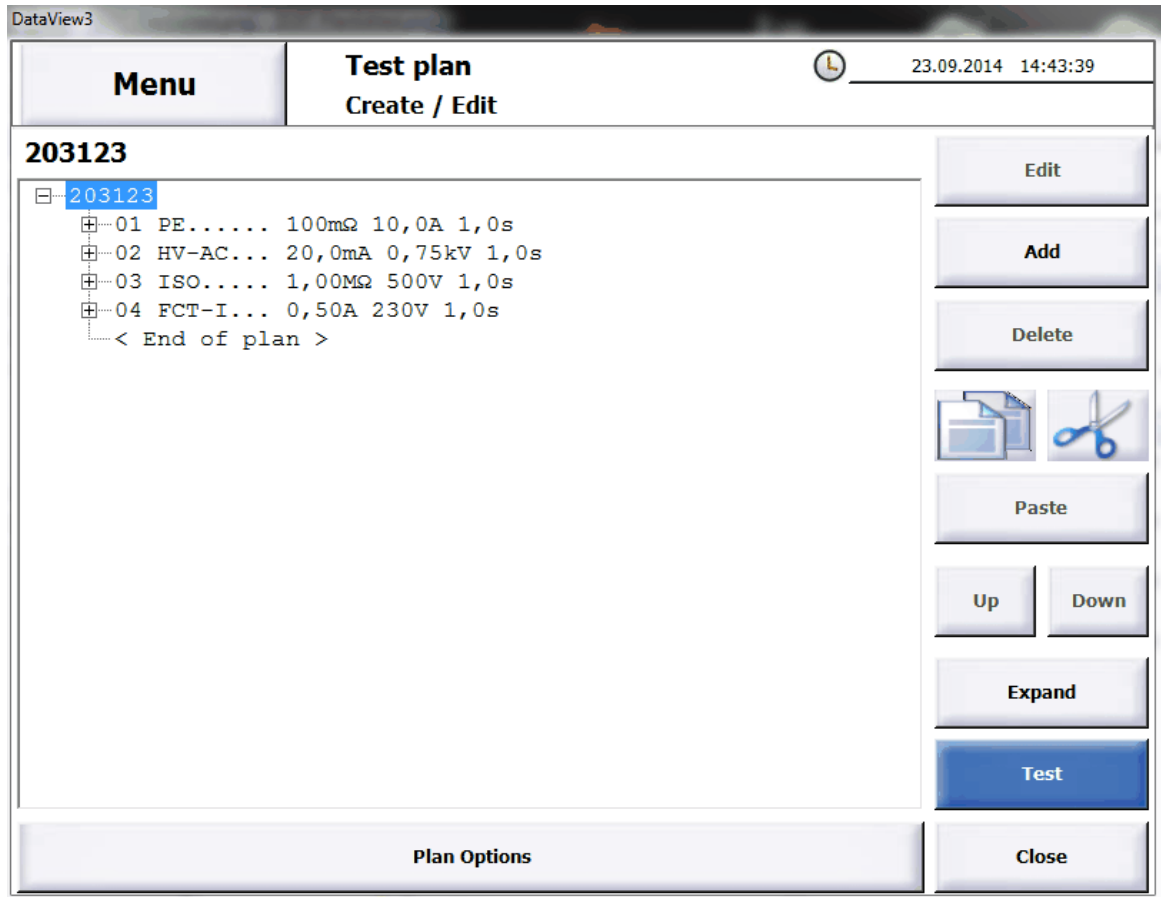
Continuity **Close**

Parameter	Description
Interpretation	Closed: The test will be evaluated as passed if a resistance lower than Limit will be measured. Open: The test will be evaluated as passed if a resistance higher than Limit will be measured.
Limit	Limit for the evaluation.
Test time	Time after that the measurement will be evaluated.
Test voltage	Maximum test voltage used for the measurement.
Max. test current	Maximum current during the test.

3.4 Test plan settings

This section discusses the settings that are valid for the entire test plan.

The associated window can be opened using the **Plan Options** button in the **Create / Edit** window.



The window with the **Planoptions** opens.

3.4.1 Text

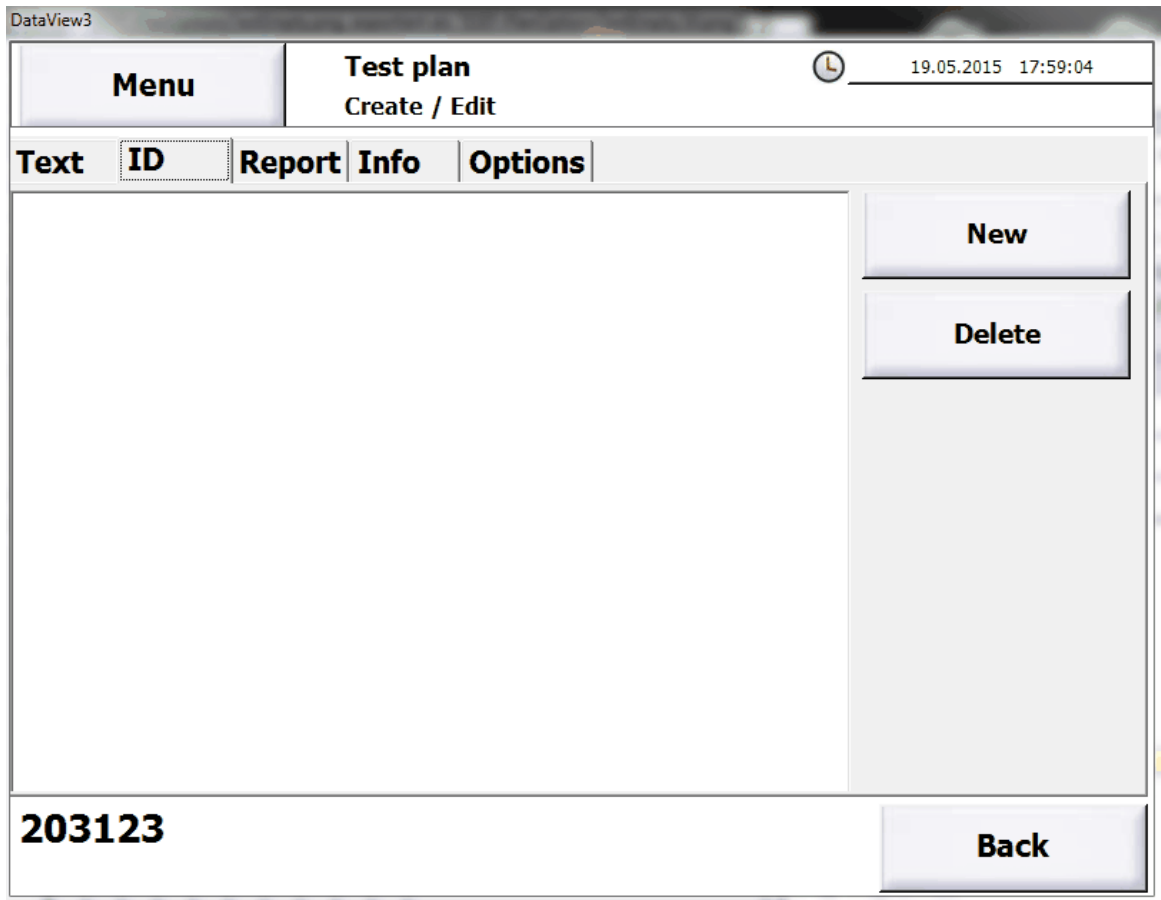
You can enter a free text here.

DataView3

Menu		Test plan Create / Edit			⌚ 19.05.2015 17:57:56
Text	ID	Report	Info	Options	
203123					Back

3.4.2 Identification

Here you can configure identifications which are used for automatic plan selection.



The screenshot shows a software window titled "DataView3". It features a menu bar with "Menu", "Test plan", and a clock icon displaying "19.05.2015 17:59:04". Below the menu bar is a tabbed interface with tabs labeled "Text", "ID", "Report", "Info", and "Options". The "ID" tab is currently selected. The main content area is a large, empty rectangular box. On the right side of this box, there are two buttons: "New" and "Delete". At the bottom left of the window, there is a text field containing the value "203123". At the bottom right, there is a "Back" button.

With the button [New](#) you can enter an new identification.

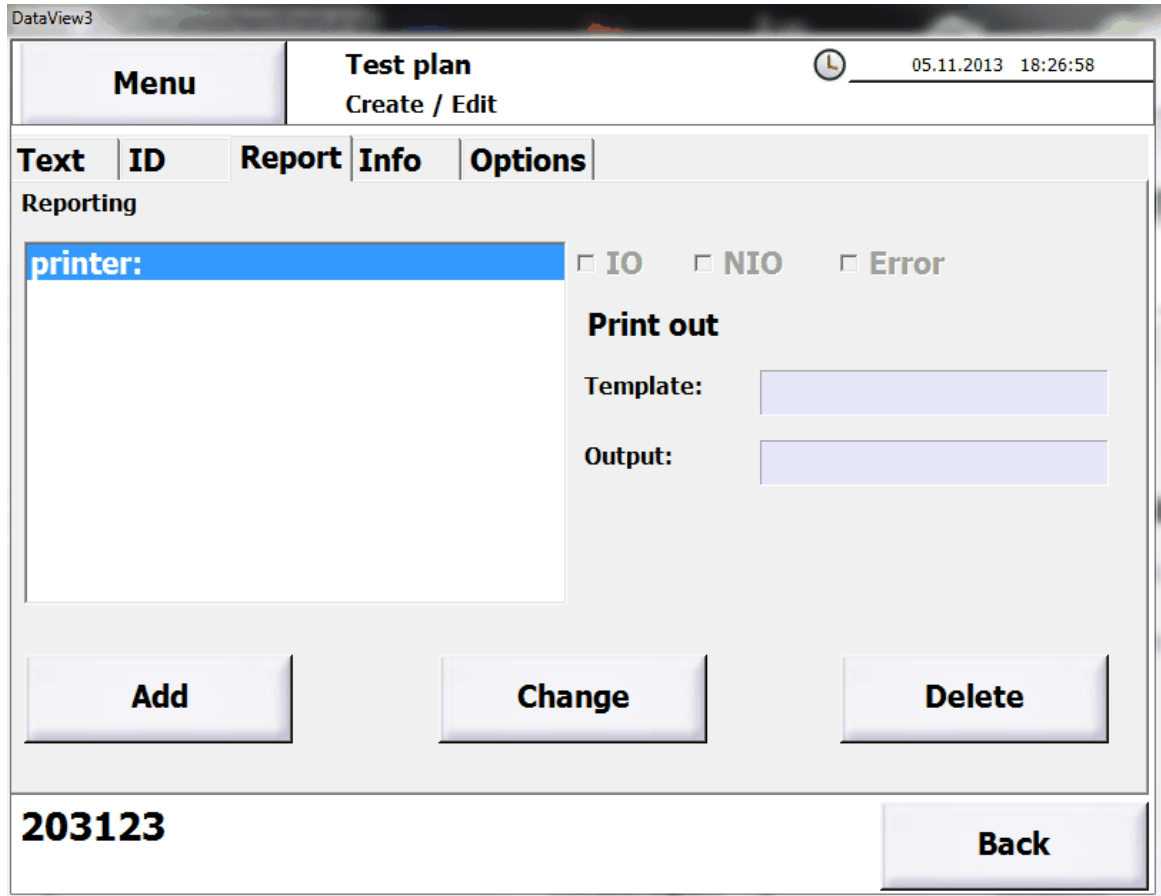
With the button [Delete](#) the selected identification will be deleted.

The identifications will be used for automatic plan selection.

3.4.3 Report options

The report options provide the possibility to convert the results data into another format. For part of the options, [templates](#) need to be created.

When calling up for the first time, no report options are yet active.



DataView3

Menu **Test plan** 05.11.2013 18:26:58
Create / Edit

Text **ID** **Report** **Info** **Options**

Reporting

printer: ☐ **IO** ☐ **NIO** ☐ **Error**

Print out

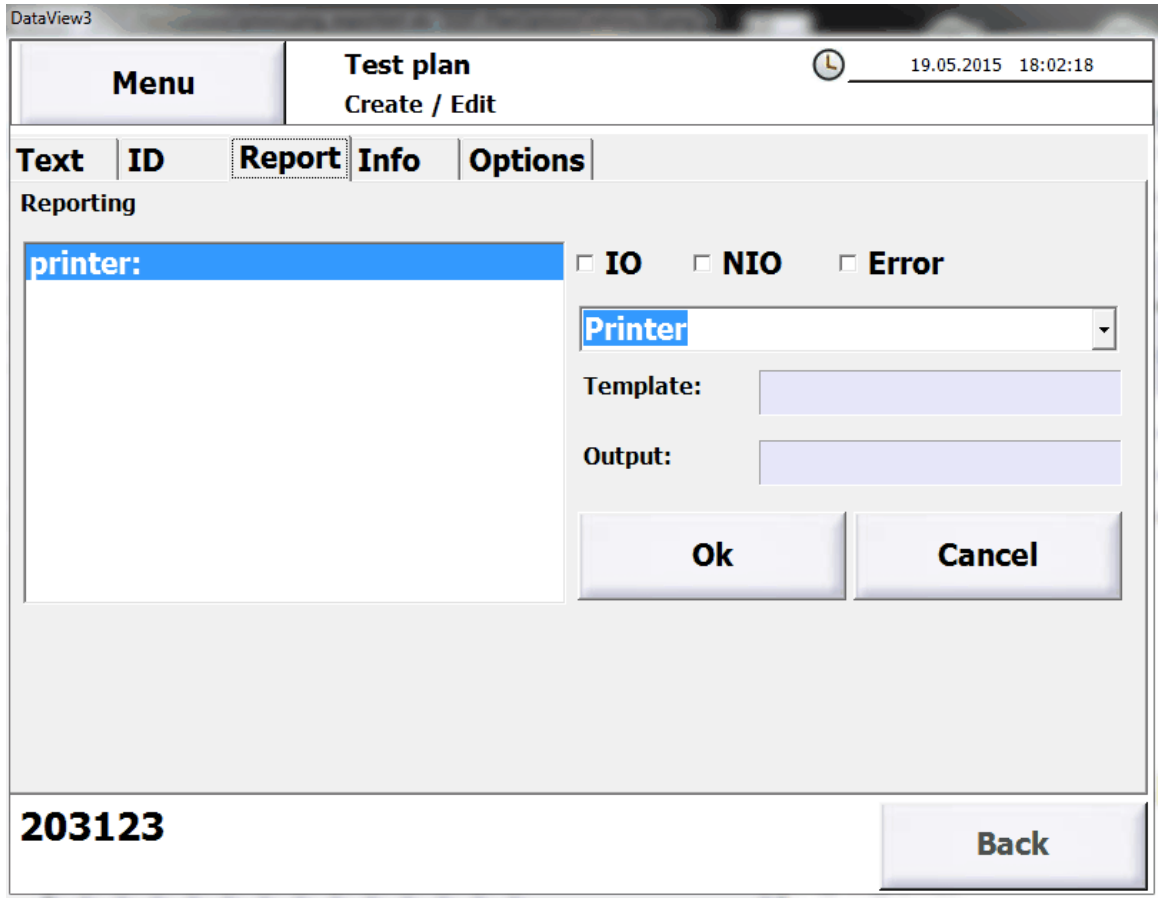
Template:

Output:

Add **Change** **Delete**

203123 **Back**

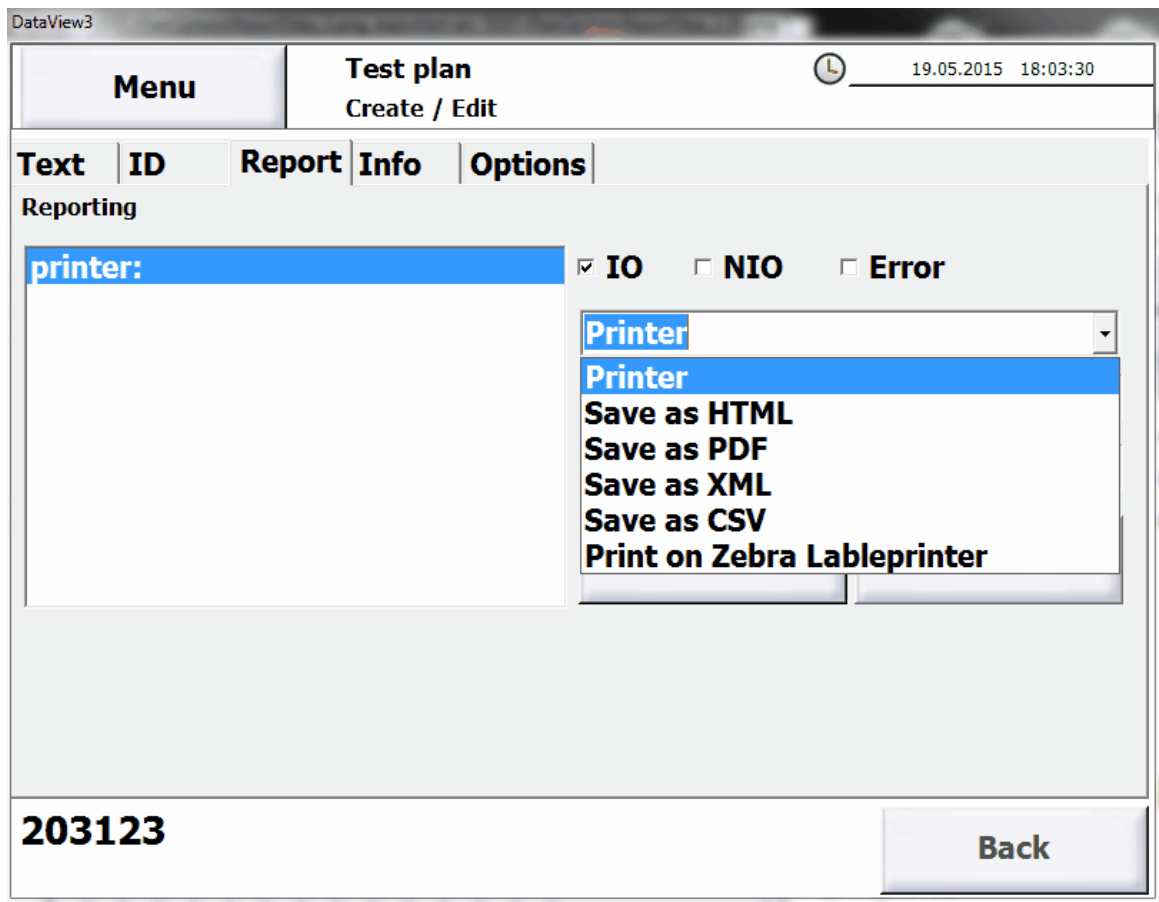
Click on the **Change** button. The dialogue changes, which means that the report selected can be edited.



The screenshot shows a software window titled "DataView3". At the top, there is a "Menu" button and a "Test plan" section with a clock icon and the text "19.05.2015 18:02:18" and "Create / Edit". Below this is a tabbed interface with tabs for "Text", "ID", "Report", "Info", and "Options". The "Report" tab is active. Under the "Report" tab, there is a "Reporting" section. On the left, a list box contains the entry "printer:". To the right of this list box are three checkboxes: "IO", "NIO", and "Error". Below these checkboxes is a dropdown menu currently showing "Printer". Under the dropdown are two text input fields labeled "Template:" and "Output:". At the bottom right of the "Reporting" section are "Ok" and "Cancel" buttons. At the bottom of the window, there is a large text field containing "203123" and a "Back" button.

Activate one or more of the **IO**, **NIO** or **Error** checkboxes so that the report is created for the corresponding overall result.

Select the desired report type from the dropdown box.



For the [Printer](#), [Save as HTML](#) and [Save as PDF](#) options, you need to select an HTML template.

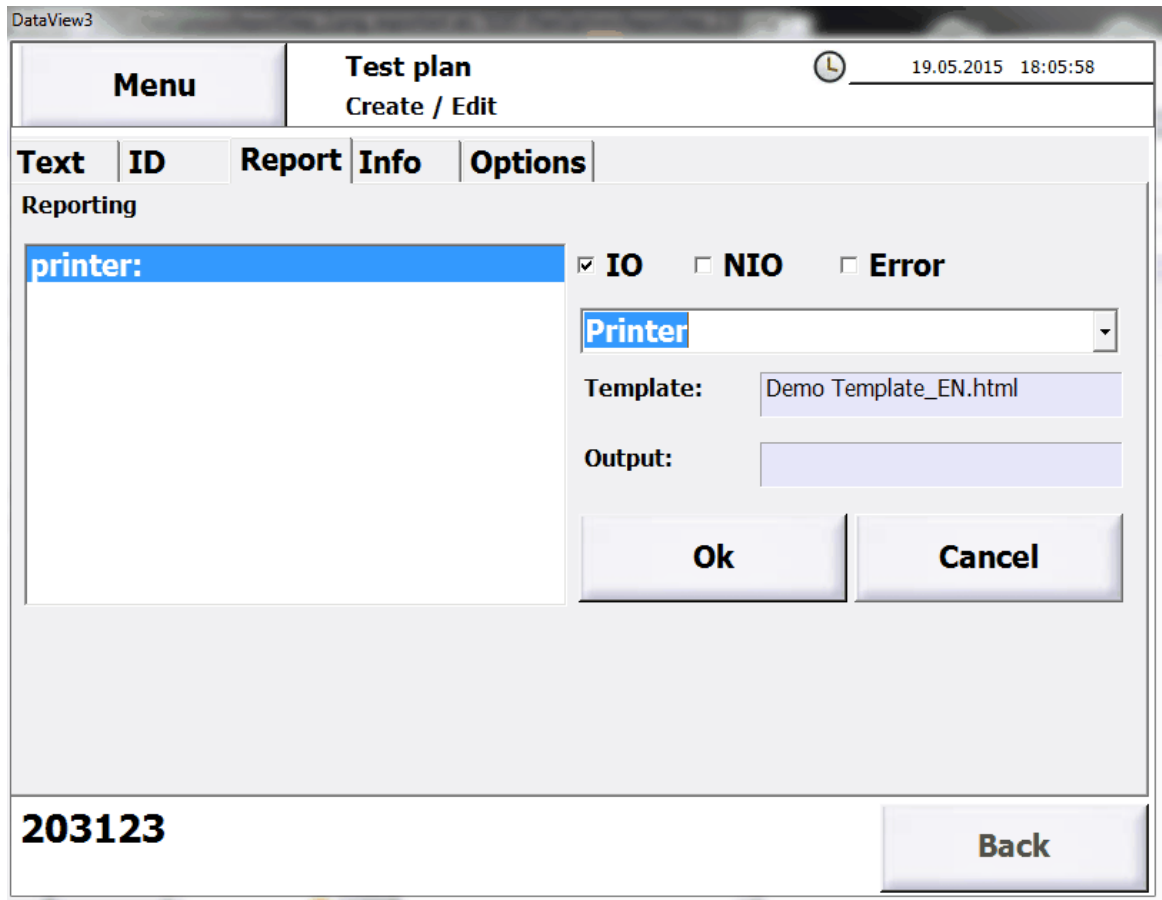
With the [Save as XML](#) option, you can select a style sheet.

With the [Save as CSV](#) option you need to select a CSV template.

With the [Print on Zebra Lableprinter](#) option, you need to select a ZPL file.

With the [Printer](#) and [Print on Zebra Lableprinter](#) options, you can additionally select a printer. If you do not select a printer, the current standard printer is used to print.

When clicking on the Template or Printer fields, the corresponding standard dialogue of Windows opens.



With the **Ok** button, you can assume the data from the report selected. With the **Cancel** button, the changes are dismissed.

With the **Save as HTML**, **Save as PDF**, **Save as XML** und **Save as CSV** options a new file is created. The place of saving and the file name are guided by the settings in **Settings** -> **File storage** -> **Result**.

3.4.4 Info

Here it will displayed when and on which workstation and which user the test plan was created or changed. If there was no [workstation name](#) configured resp. the [user administration](#) was not active the according fields are empty.

DataView3

Menu		Test plan Create / Edit		19.05.2015 18:00:25	
Text	ID	Report	Info	Options	
Created					
Date	01.09.2014 16:15:10				
User					
Workstation	ATS400 SN 20229407102017				
changed					
Date	19.05.2015 17:45:58				
User					
Workstation	ATS400 SN 20229407102017				
203123				Back	

3.4.5 Options

This option will not be used any more. This option has expanded and is now part of the [Start conditions](#).

Menu

Test plan

Create / Edit

⌚

19.05.2015 18:01:06

Text

ID

Report

Info

Options

Plan options

Timeout:

s

203123

Back

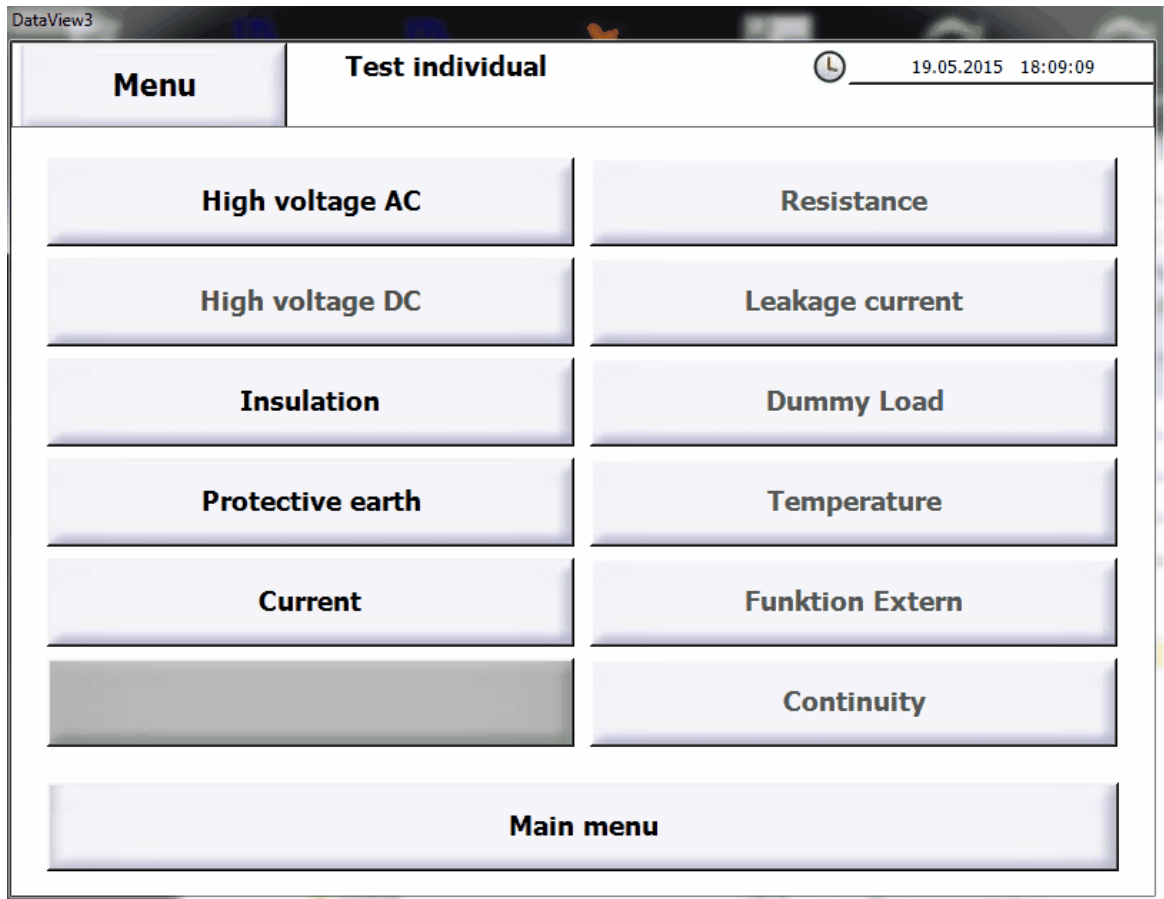
4 Inspector

This part of the manual is aimed for those persons using the program for testing.

This part described the general procedures for using. Regarding to the different situations this part cannot describe the concrete situation at a test station.

4.1 Test individual

Open the dialog choosing **Test individual**.

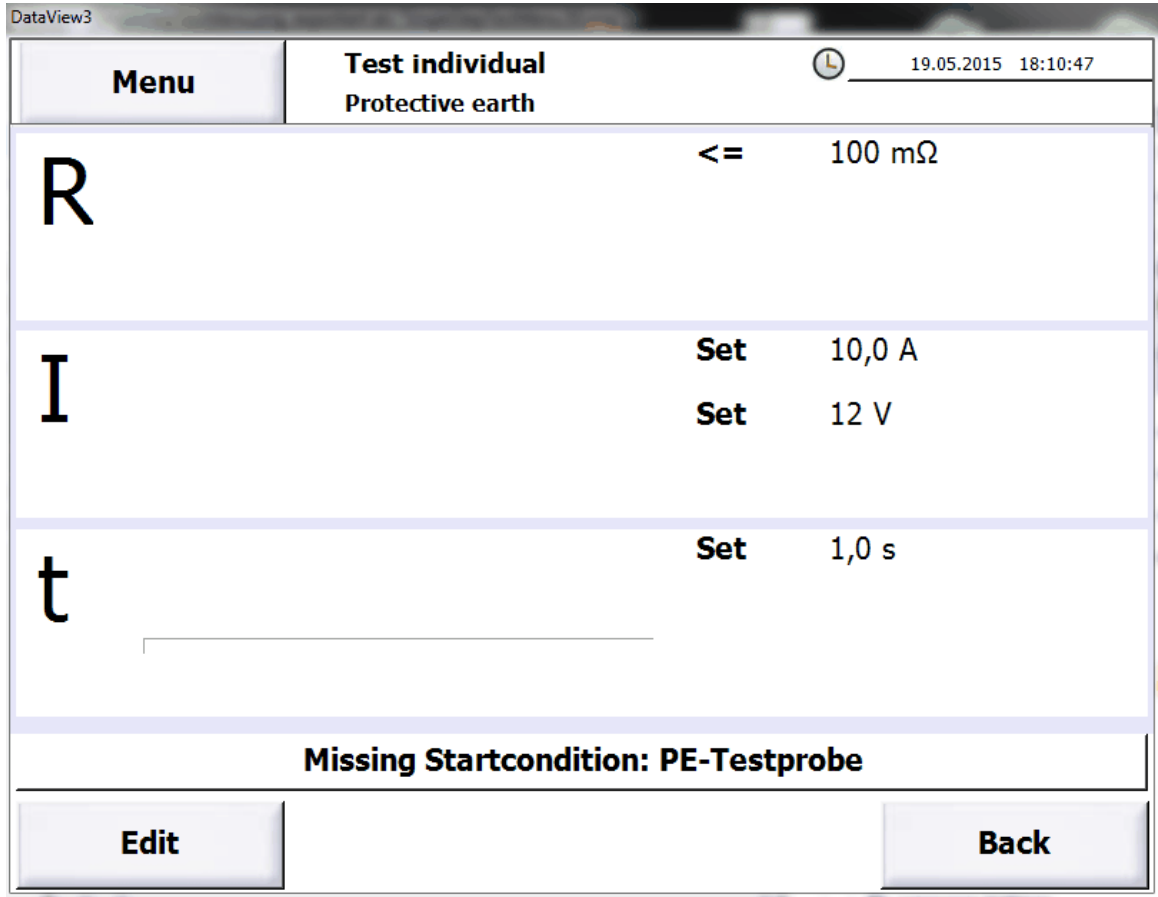


There is a button for each test type. The buttons for the available test types on your **ATS400** are operational.

The window for each test type is the same. In the following this is described with the protective earth test as an example.

4.1.1 Protective earth test

You will do a protective earth test in this window.



Before the first test no values will be displayed. During and after the test the values will be displayed.

A white background means that no test has been done.

A yellow background means that a test is currently executing.

A green background means that the last test was evaluated as passed.

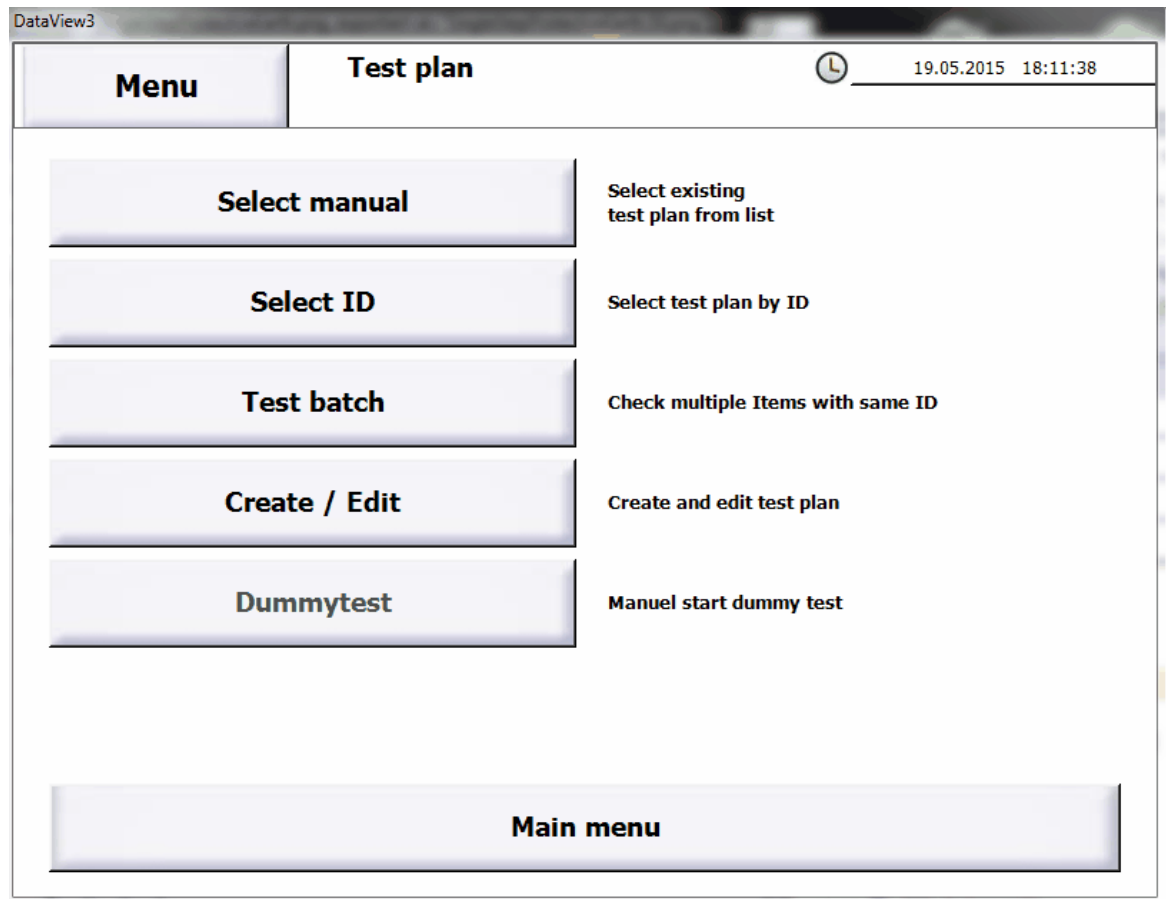
A red background means that the last test was evaluated as failed.

Button	Action
Menu	This button is operational when no test is executed. The main menu will be displayed.
Edit	This button is operational when no test is executed. The configuration dialog will be displayed.
Back	The window will be closed. During a test the button changes to Cancel .

Button	Action
Cancel	The currently running test will be aborted. The test will be evaluated as failed. The button changes to Back .

4.2 Test plan

Open the dialog choosing [Test plan](#).

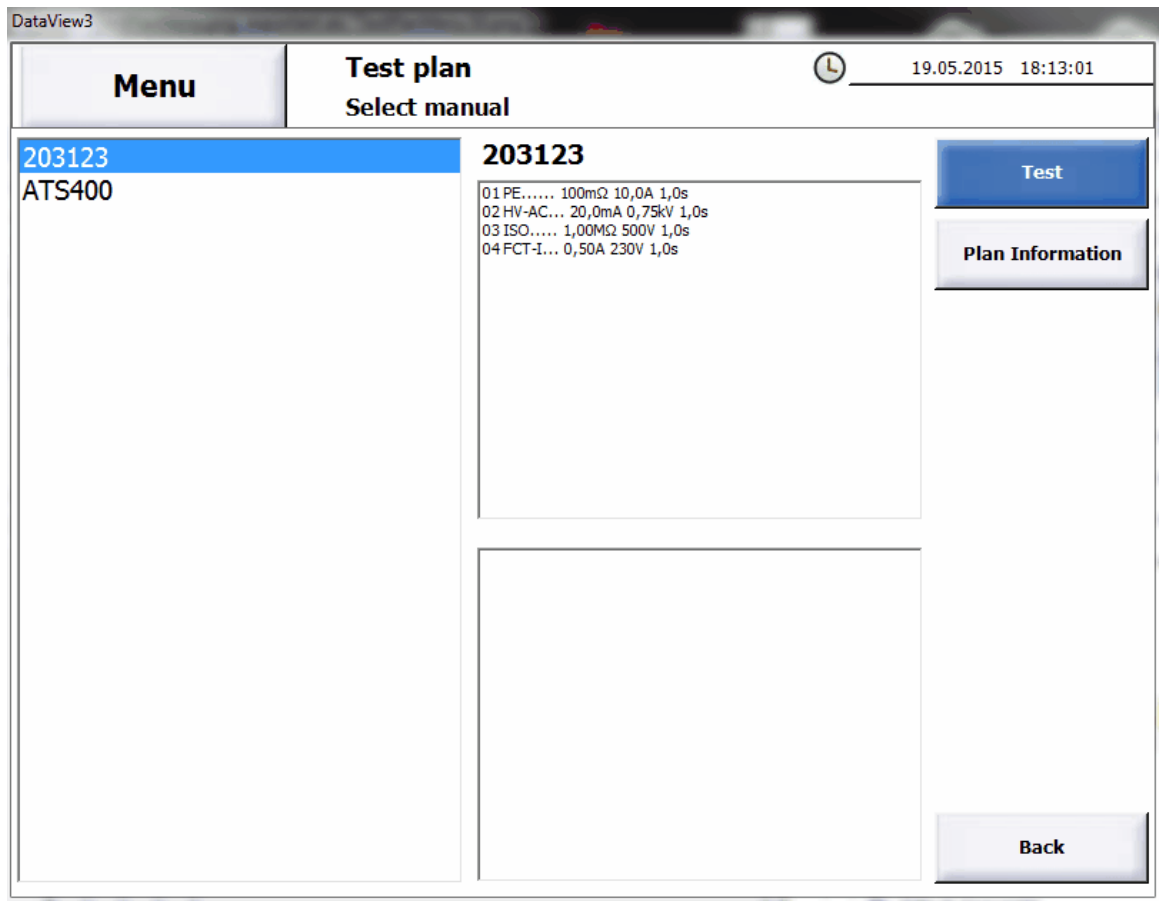


Button	Action
Menu	The main menu will be displayed.
Select manual	The window for manual test plan selection will be opened.
Select ID	The window for automatic test plan selection will be opened. Using this selection the test plan will be closed after the test of one unit under test.
Test batch	The window for automatic test plan selection will be opened. Using this

Button	Action
	selection the test plan will be closed by the tester. This button is not operational when the workstation is setup to use ETL-Interface or File Plan.ID for automatic test plan selection.
Create / Edit	The window for test plan administering will be opened.
Dummytest	This button is operational when a dummy test plan is present. A dummy test will be done.
Main menu	The main menu will be displayed.

4.2.1 Manual test plan selection

Open the dialog choosing [Test plan](#) -> [Select manual](#).



On the left side the list of the existing test plans are displayed.

In the midth upper part the test steps in the selected test plan are displayed. Is no

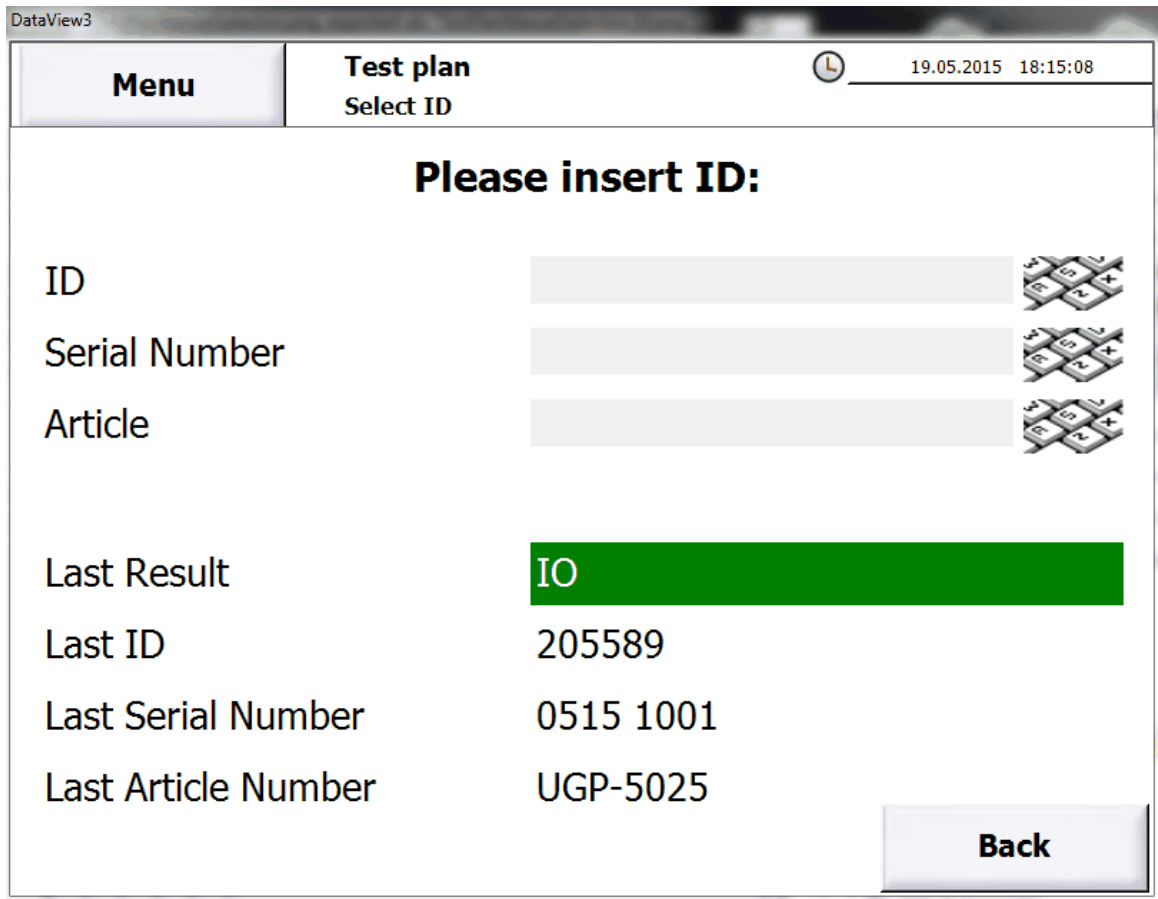
test plan selected the list is empty.

In the middle lower part the data for the test step is displayed. If no test plan or no test step selected the list is empty.

Button	Action
Menu	The main menu will be displayed.
Test	The window Test plan will be opened.
Plan information	The window for Plan options will be opened. In this mode you cannot do any changes.
Back	The window will be closed.

4.2.2 Automatic test plan selection

Open the dialog choosing [Test plan](#) -> [Select ID](#) or [Test plan](#) -> [Test batch](#).



The number of the displayed fields depends on how the automatic test plan selection is [configured](#). In this example the maximum number of fields is displayed and is according to the example [Article number and serial number](#) with additionally activated

checkbox for the article description.

Button	Action
Menu	The main menu will be displayed.
Back	The window will be closed.

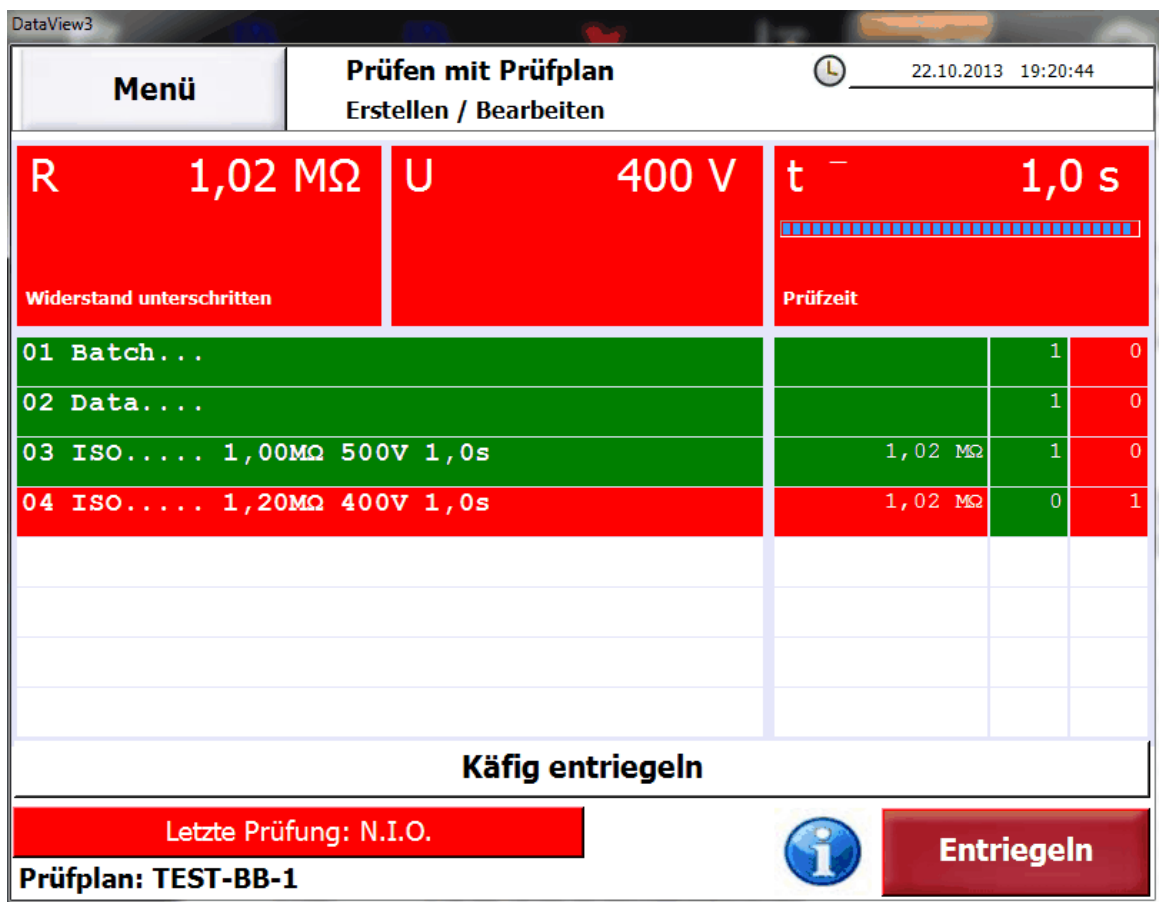
4.3 Safety cabinet

The safety cabinets are built this way that they are locked when they are not supplied by the **ATS400**. After powering on the **ATS400** they are unlocked and can be opened.

Depending how the **ATS400** is setup in the [administration ETL DataView 3](#) behaves different together with the safety cabinet.

The setting **Locked during plan** prevents an influence during executing a test plan. The safety cabinet can be opened after the test plan has completed.

The setting **Unlock on pass** also contains a process control. In the case a test will be evaluated as failed the safety cabinet will be unlocked after a second action for unlocking. Dependend from the configuration of the saftey cabinet this can be done with the button **Cancel** and always with the button **Unlock** in **ETL DataView 3**.



DataView3


Menü **Prüfen mit Prüfplan** 22.10.2013 19:20:44
Erstellen / Bearbeiten

R 1,02 MΩ	U 400 V	t 1,0 s
Widerstand unterschritten		Prüfzeit
01 Batch...		1 0
02 Data...		1 0
03 ISO..... 1,00MΩ 500V 1,0s	1,02 MΩ	1 0
04 ISO..... 1,20MΩ 400V 1,0s	1,02 MΩ	0 1

Käfig entriegeln

Letzte Prüfung: N.I.O.

Prüfplan: TEST-BB-1

 **Entriegeln**

When the safety cabinet is unlocked the message **Open safety cabinet** will be displayed until the safety cabinet has been opened.

5 Report creation

This part of the manual is aimed at the persons who create and edit the report templates.

It contains information that is necessary to create report templates that are required for the individual report options.

5.1 Creating templates

For the use of the [Printer](#), [Save as HTML](#) and [Save as PDF](#) report options, you need to create an [HTML template](#).

When using the [Save as XML](#) report option, you can create a style sheet.

To use the [Save As CSV](#) report option, you need to create a [CSV template](#).

To use the [Print on Zebra Lableprinter](#) option, you need to create a ZPL file as a template.

All templates have in common that the data can be accessed via [key words](#).

5.1.1 Key words

You can access the data of the results files via key words. The key words always consist of prefix [TAG_](#) and the postfix [_TAG](#). They are not displayed in the following tables. Upper and lower case is considered for the key words. Assume the key words in the way as they are written in the following tables.

Key words that apply for the entire test plan have the form [TAG_<key word>_TAG](#).

Key words that apply for a test view have the form [TAG_<step>_<key word>_TAG](#). In doing so, it is defined in [<step>](#) what test step is accessed. If [<step>](#) has the value [##](#), every test step of the test plan is accessed. In this case, the key word must exist in a cell of a table. If [<step>](#) has the value [#n](#), while [n](#) is a number counted from 1, precisely this step is accessed. In this case, the key word can also be used outside a table.

Key words that refer to the multiple test data of a test step have the form [TAG_<step>_Multitest_<Multitest>_<key word>_TAG](#). In doing so, it is defined in [<Multitest>](#) what multiple test is accessed. If [<Multitest>](#) has the value [##](#), every multiple test is accessed. In this case, the key word must exist in a cell of a table. If [<Multitest>](#) has the value [#n](#), while [n](#) is a number counted from 1, precisely this multiple test is accessed.

5.1.1.1 Key words of the results data

This section describes all key words that apply for the total test plan and are addressed with the form [TAG_<key word>_TAG](#).

Key words that are part of every results file:

Key word	Explanation
DataView_Version	Version of ETL DataView 3 with which this file

Key word	Explanation
	was created.
PlanName	Name of the test plan, is filled with the file name when being created.
PlanPath	Relative path to the application where the test plan was saved.
PlanDescription	Description of the test plan. This value can be entered by the user in Settings -> Text .
PlanCreatedByUser	User who created the test plan first. If user administration is not active, the field is empty.
PlanCreatedByWorkstation	Test station where the test plan was created. The name of the test station can be stated in Settings -> Workstation -> Base settings .
PlanCreatedOnDate	Date of creating the test plan. The date is in the format in accordance with the country settings valid at this moment in time.
PlanEditedByUser	User who modified the test plan last. If user administration is not active, the field is empty.
PlanEditedByWorkstation	Test station where the test plan was modified last. The name of the test station can be stated in Settings -> Workstation -> Base settings .
PlanEditedOnDate	Date of modifying the test plan. The date is in the format in accordance with the country settings valid at this moment in time.
PlanIdentificationEnabled	The <ResultData>\<Identification> block exists.
PlanBatchEnabled	Intended for future purposes.
PlanTestSteps	Number of test steps in the test plan.
PlanSelectMode	Selection method for plan selection via identification
PlanSelectPatternID	Template to identify the PlanID
PlanSelectPatternTyp	Template to identify the type if it is entered with the ID.
PlanSelectPatternSerie	Template to identify the serial number if it is entered with the ID.
PlanSelectPatternMask	Bit template: 1: Combined field (2+4) 2: Entry type 4: Entry series 8: Entry articelnumber
DATE	Date of the test in the local date format.

Key word	Explanation
TIME	Time of the test in the local time format.
TESTER	User logged in.
PLAN_NAME	Name of the test plan used.
WORKSTATION	Name of the test station.
USEDID	ID used for the automatic test plan selection.
RESULT	Total result of the plan. Passed -> The test item has passed the test. Failed -> the test item has not passed the test or the test was cancelled.
FileSavedByUser	User who saved the test plan or the result file.
FileSavedByWorkstation	Test station where the test plan or the result file was saved. The name of the test station can be stated in Settings -> Workstation -> Base settings.
FileSavedOnDate	Date of saving the test plan or the result file. The date is in the format in accordance with the country settings valid at this moment in time.
Count_Tests	Number of tests that were carried out since starting the test plan.
Count_IO	Number of IO results of the test since starting the test plan.
Count_NIO	Number of NIO results of the test since starting the test plan.
Count_ERROR	Number of errors of the test since starting the test plan.
PlanCycleTime	Duration for carrying out the test. The value is always 0.
PlanStandbyTime	Duration between the end of the prior test and the start of the current test.
IDs	Number of IDs.
ID_n	Identification for the test plan. The tags are numbered from 0 to the number of IDs - 1, i.e. have the values ID_0, ID_1, etc.

Key words that are part of the Batch run test step:

Key word	Explanation
Benutzer	User field, can be adopted from the login.
Pruefplatz	Test station field, can be adopted from

Key word	Explanation
	the workstation settings.
Typ	Type, can already be entered during the automatic test plan selection.
Auftragsnummer	Order number
Seriennummer	Serial number, can already be entered during the automatic test plan selection. If this value is numerical, it can be automatically increased for IO or NIO.

Key words that are entered via the automatic test plan selection:

Key word	Explanation
TYPE	Type of the test item, is only filled in if the combobox is active.
USEDID	ID used to select the test plan, is only filled in when the ID-Pattern field is active.
SERIALNUMBER	Serial number of the test item, is only filled in if the Serial-Pattern field is active.
ARTICLE	Article name, is only filled in if the Article-Pattern field is active.

5.1.1.2 Key words of the test step parameters

The following key words are common for all test steps. These key words are addressed with the form **TAG_<step>_<key word>_TAG**.

Key words for the parameters:

Key word	Explanation
UNIT	Unit of the measurement value
UNIT2	Unit of the test size
MIN	Minimum value of the measurement value.
MAX	Maximum value of the measurement value.
StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.

Key word	Explanation
StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
t_delay	Start delay between fulfilling the start condition and the start of the test.
StateChangeBits	Always 0, never used.
StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
StartStateJump	Indicates whether the Jump button is displayed.
Repeating	Indicates how often the test step is carried out.
StartButton	Indicates whether the Start button is displayed.
PassButton	Indicates whether the Pass button is displayed.
StartandJump	Indicates whether the Start and Jump buttons are displayed.

The [Batch run](#), [Data Input](#), [Dummy load](#), [External program](#), [FCT-Current](#), [High Voltage AC](#), [High voltage DC](#), [Insulation](#), [Leakage current](#), [Matrix](#), [Light Filament current](#), [Protective earth](#), [PT100](#), [Resistance](#) and [User-Interface](#) test types use the following parameters in addition:

Key word	Explanation
Polung	Contacting setting of an external relay matrix.
PolungCAN_00 bis PolungCAN_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Multitest_Enable	Multitest is active, if the value does not equal 0.
Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements

Key word	Explanation
	1 = pass key
Multitest_Endekriterium_Anzahl	Number of multitest inspections.

The [Lightcontrol](#), [Data Input](#), [External program](#), [FCT-Current](#), [High Voltage AC](#), [High voltage DC](#), [Insulation](#), [Leakage current](#), [Matrix](#), [Light Filament current](#), [Protective earth](#), [PT100](#), [Resistance](#) and [User-Interface](#) test types use the following parameters in addition:

Key word	Explanation
ErrorStartCondition	Condition for switching forward in the event of an error.
ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
ErrorStateChangeBits	Always 0, never used.
ErrorWSBDelay	Delay of switching further in the event of an error.
ErrorWSBTimeValid	Delay time active.

5.1.1.2.1 Key words of the Protective earth test type

The [Protective earth](#) test type additionally uses the following key words:

Key word	Explanation
U	Idle voltage
I	Test current
R_max	Upper threshold value of the resistance.
t	Test time
f	Frequency of the voltage
EN60204	Indication whether the test is performed in accordance with EN 60204. Always 0.
DC_Enable	Indicates whether the test is carried out with direct current voltage. 0: Alternating current 1: Direct current

5.1.1.2.2 Key words of the High Voltage AC test type

The **High voltage AC** test type additionally uses the following key words:

Key word	Explanation
U	Test voltage
I_min	Lower threshold
I_max	Upper threshold
t	Test duration
Ramp	Indicates whether the ramp is active.
U_start	Start voltage
t_up	Increase time of the ramp. This parameter is only valid if the ramp is active.
t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.
f	Frequency of the voltage
Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.
f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.
U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal
CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.

5.1.1.2.3 Key words of the High voltage DC test type

The **High voltage DC** test type additionally uses the following key words:

Key word	Explanation
U	Test voltage
I_min	Lower threshold
I_max	Upper threshold
t	Test duration
Ramp	Indicates whether the ramp is active.
U_start	Start voltage
t_up	Increase time of the ramp. This parameter is only valid if the ramp is active.
t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.
U_discharge	Discharge voltage
Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.
f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.
U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal
CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Timeinterval	Time interval between two samples which will be written to the log file. The

Key word	Explanation
	value is in seconds. This value will only be used in case the value in CreateLog is 1.
CheckCurrentInRamp	During a HVDC8 test the current will be checked against the limit I_{max} also during executing a ramp.

5.1.1.2.4 Key words of the Insulation test type

The **Insulation** test type additionally uses the following key words:

Key word	Explanation
U	Test voltage
R_min	Lower threshold of the insulation resistance.
t	Test duration
Ramp	Indicates whether the ramp is active.
U_start	Start voltage
t_up	Increase time of the ramp. This parameter is only valid if the ramp is active.
t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.
U_discharge	Discharge voltage
Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.
f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.
U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal

Key word	Explanation
CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.

5.1.1.2.5 Key words of the FCT-Current test type

The **FCT-Current** test type additionally uses the following key words:

Key word	Explanation
U_Source	Source of the test supply.
U	Voltage of the test item supply
I_min	Lower threshold value during the analysis. Not valid if the analysis is set to Pass/Fail . The unit and thresholds depend on the channel.
I_max	Upper threshold value during the analysis. Not valid if the analysis is set to Pass/Fail . The unit and thresholds depend on the channel.
t	Test time
f	Frequency of the voltage
t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
t_timeout	Timeout for the start of the analysis. The value is not used for all start scenarios.
Gradient	Gradient for the start of the analysis. This value is not used for all start scenarios.
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on

Key word	Explanation
Scenario	Type of the start of the analysis
Auswertung	Type of the analysis 0 = measurement 1 = Pass/Fail button
Kanal	Measurement channel 0 = current 1 = analogue channel1 2 = analogue channel2 3 = analogue channel3 4 = analogue channel4 5 = voltage measurement Starting with IO-CPU 33329 6 = analogue channel1 on the second interface 7 = analogue channel2 on the second interface 8 = analogue channel3 on the second interface 9 = analogue channel4 on the second interface
SourceIsDC	External source provides direct current voltage
Graphic	Type of the graphics settings 0 = no graphics 1 = only display graphic 2 = display and save graphic
CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
UseAnalogConversion	This check box indicates whether the analog input will be converted to customer specific units. 0 = No conversion 1 = Do conversion
ConversionOffset	Value of the physical value when the voltage has value 0. This field is only valid when UseAnalogConversion has the value 1.
ConversionGradient	Slope for the conversion of the voltage into the physical value.

Key word	Explanation
	This field is only valid when UseAnalogConversion has the value 1.
PhysicalUnit	Physical unit of the customer specific conversion. This field is only valid when UseAnalogConversion has the value 1.

5.1.1.2.6 Key words of the Leakage current test type

The **Leakage current** test type additionally uses the following key words:

Key word	Explanation
Messmodell	Measurement model used.
Messmethode	Measurement method used. 0: Protective conductor current 1: Housing discharge current
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
U_Source	Source of the test supply.
U	Voltage of the test item supply
I_max	Upper threshold for the discharge current.
t	Test time
f	Frequency of the voltage
t_start	Will not be used.
Auswertung	Measurement channel used for the test: 0: I AC rms 1: I DC 2: I min 3: I max 4: I rms
Polaritaet	Polarity used of the supply of the test item. For single-phase test item: 0: Automotive 1: L1-> PE 2: L2-> PE 3: Mode B

Key word	Explanation
	4: Automatic with first error 5: L1 -> PE with first error 6: L2 -> PE with first error With three-phase test item: 0: Clockwise rotation 1: Counterclockwise rotation
SelftestMode	Always 0
I_min	Lower threshold for the discharge current.
Phase	Number of phases of the test item.
CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.

5.1.1.2.7 Key words of the Sight check test type

The **Sight check** test type additionally uses the following key words:

Key word	Explanation
Abfrage	Mode for termination.

5.1.1.2.8 Key words of the Data input test type

The **Data input** test type additionally uses the following key words:

Key word	Explanation
EingabeMasken	Bit samples containing screen fields instead of requirements.

5.1.1.2.9 Key words of the Batch run test type

The **Batch run** test type additionally uses the following key words:

Key word	Explanation
SettingFlags	Settings that indicate that certain fields are configured at other locations. This field is bit coded.
EingabeMasken	Bit samples containing screen fields

Key word	Explanation
	instead of requirements.

5.1.1.2.10 Key words of the User-Interface test type

The **User-Interface** test type additionally uses the following key words:

Key word	Explanation
In	Entry bits
InMask	Mask for entry bits.
Out	Output bits
OutMask	Mask for output bits.
Duration	Duration of the output pulse.
Timeout	Timeout when waiting for the status of the entry bits. This parameter is only valid if the TimeoutEnable parameter is set.
TimeoutEnable	States whether timeout is used. 0: Timeout is not used 1: Timeout is used
NumInterface	Number of the user IO interface used. 0: User-IO Interface of the internal IO-CPU 1: User-IO Interface of the external IO-CPU

5.1.1.2.11 Key words of the Resistance test type

The **Resistance** test type additionally uses the following key words:

Key word	Explanation
t	Test time
R_min	Lower threshold value of the resistance.
R_max	Upper threshold value of the resistance.
R_offset	Resistance of the measurement structure.
t_timeout	Maximum time after starting until the first measurement value is recorded.

5.1.1.2.12 Key words of the Continuity test type

The **Continuity** test type additionally uses the following key words:

Key word	Explanation
TestVoltage	Maximum test voltage used for the measurement.
TestTime	Time after that the measurement will be evaluated.
MaxTestCurrent	Maximum current during the test.
Limit	Limit for the evaluation.
Interpretation	Evaluation of the measurement: 1: Pass on continuity 2: Pass on discontinuity
TypeOfSource	Type of the used source: 0: Alternating current 1: direct current

5.1.1.2.13 Key words of the PT100 test type

The **PT100** test type additionally uses the following key words:

Key word	Explanation
T_min	Lower threshold for the temperature.
T_max	Upper threshold for the temperature.
R_offset	Resistance of the measurement structure.
R0	Basic resistance of the measurement sensor.

5.1.1.2.14 Key words of the Lightcontrol test type

The **Lightcontrol** test type additionally uses the following key words:

Key word	Explanation
Leuchte_ART	Type of the light
Leuchte_BEFEHL	Command to the light
Leuchte_DIM	Dim value
Leuchte_DALIC	DALIC
Leuchte_DALIV	DALIV
Leuchte_DIMT	DIMT

5.1.1.2.15 Key words of the Dummy load test type

The **Dummy load** test type additionally uses the following key words:

Key word	Explanation
Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
U_Source	Source of the test supply.
U	Voltage of the test item supply
f	Frequency of the voltage
Channels	Number of channels
RGas	Gas resistance
RCoil	Coil resistance
Filament_enable	Active flame
Filament_t	Active flame
Filament_delay	Flame delay
Filament_I	Current of the flame
Ignition_enable	Ignition available
Ignition_t	Ignition time
Ignition_delay	Ignition delay
Ignition_U	Ignition voltage
Fct_enable	Function available
Fct_t	Duration of the function
Fct_delay	Delay of the analysis
Fct_Imin	Lower threshold value of the current
Fct_Imax	Upper threshold value of the current
t_timeout	Always 0
Filament_Imax	Max. current of the flame

5.1.1.2.16 Key words of the Light Filament current test type

The **Light Filament current** test type additionally uses the following key words:

Key word	Explanation
Management	Indicates how to proceed after the test

Key word	Explanation
	with supplying the test item. 0: Deactivate 1: Activate
Filament_enable	Active flame
Filament_t	Active flame
Filament_delay	Flame delay
Filament_I	Current of the flame
Filament_I _{max}	Max. current of the flame

5.1.1.2.17 Key words of the External programm test type

The **External program** test type additionally uses the following key words:

Key word	Explanation
SettingFlags	Settings

5.1.1.3 Key words of the test step measurement values

Every test step has the following fields:

Key word	Explanation
COUNTIO	Number of times this step was successfully carried out.
COUNTNIO	Number of times not carried out successfully.
COUNTERR	Number of cancelled tests.
CountTests	Total number of tests carried out.
StepCycleTime	Duration of the test.
Result	Result of the test step: UnTested -> This test step was not carried out during this test. Active -> Test step is active, cannot occur in the file. IO -> This test step was rated as IO. NIO -> This test step was rated as NIO. ERROR -> This test step was cancelled with an error. Jumped -> This test step was skipped.
dblResultValue1	Numeric measurement value in SI unit.
dblResultValue2	Numeric value of the test size in SI units.
strResultValue1	Formatted measurement value with a

Key word	Explanation
	unit.
<code>strResultValue2</code>	Formatted test value with a unit.
<code>strResultTestTime</code>	Formatted duration of the test in seconds.
ERROR	<p>Indication of the error when cancelling the measurement.</p> <p>None -> No error</p> <p>Timeout_StartMeasurement -> Time error when starting the measurement</p> <p>Timeout_SetPassFail -> not used</p> <p>Timeout_MeasureTimeOvershoot -> measurement time exceeded</p> <p>Invalid_TestState -> invalid test status</p> <p>Invalid_TestResult -> invalid test result</p> <p>Invalid_PVSteuerLT -> invalid control word</p> <p>Invalid_PVStatusPruefung -> invalid status of the test</p> <p>Invalid_TestParameter -> invalid test parameter</p> <p>Cancel -> cancelled</p>
<code>ERRORinfo</code>	Expanded error number.
<code>TestingUser</code>	User logged in during the test step.
<code>SightCheckInputText</code>	User entry during the visual inspection.

5.1.1.4 Key words of the multiple test values test step

Every multiple test has the following fields:

Key word	Explanation
<code>dblTestResult</code>	Result value of the multiple test in the SI unit. This field contains only a figure value.
<code>strTestResult</code>	Result value as text.
<code>TestPoint</code>	User input for the multitest.
<code>MultitestUser</code>	User logged in during the multitest.

5.1.1.5 Key words of the test step advices

Every test step has the following fields:

Key word	Explanation
<code>TextCount</code>	Always 3
<code>Text_0</code>	Text to be output with indication beforehand.
<code>TextEnable_0</code>	Activation of the output with indication beforehand.
<code>TextSize_0</code>	Font size with indication beforehand.
<code>Picture_0</code>	File name of the image with indication beforehand. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Outputtype_0</code>	Image or text display with indication beforehand. Values used: <code>Text</code> displays the text only. <code>Bild</code> displays the image only. <code>TextBild</code> displays the text and the image. <code>TextWithInputField</code> displays the text and an input field.
<code>OutputSize_0</code>	Small or large display with indication beforehand Values used: <code>TextKlein</code> displays the small window for the text. <code>TextGroß</code> displays the large window for the text. <code>BildKlein</code> displays the small window with the image. <code>BildGroß</code> displays the large window with the image. <code>TextMitEingabeFeldKlein</code> displays the small window for the text and the input field. <code>TextMitEingabeFeldGroß</code> displays the large window for the text and the input field. <code>Nichts</code> displays no field.
<code>Text_1</code>	Text to be output with indication during.
<code>TextEnable_1</code>	Activation of the output with indication during.

Key word	Explanation
<code>TextSize_1</code>	Font size with indication during.
<code>Picture_1</code>	File name of the image with indication during. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Outputtype_1</code>	Image or text display with indication during Values used: <code>Text</code> displays the text only. <code>Bild</code> displays the image only. <code>TextBild</code> displays the text and the image. <code>TextWithInputField</code> displays the text and an input field.
<code>OutputSize_1</code>	Small or large display with indication during. Values used: <code>TextKlein</code> displays the small window for the text. <code>TextGroß</code> displays the large window for the text. <code>BildKlein</code> displays the small window with the image. <code>BildGroß</code> displays the large window with the image. <code>TextMitEingabeFeldKlein</code> displays the small window for the text and the input field. <code>TextMitEingabeFeldGroß</code> displays the large window for the text and the input field. <code>Nichts</code> displays no field.
<code>Text_2</code>	Text to be issued in the event of error.
<code>TextEnable_2</code>	Activation of the output in the event of an error.
<code>TextSize_2</code>	Font size in the event of an error.
<code>Picture_2</code>	File name of the image in the event of an error. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Outputtype_2</code>	Image or text display in the event of an error.

Key word	Explanation
	Values used: Text displays the text only. Bild displays the image only. TextBild displays the text and the image. TextWithInputField displays the text and an input field.
OutputSize_2	Small or large display in the event of an error. Values used: TextKlein displays the small window for the text. TextGroß displays the large window for the text. BildKlein displays the small window with the image. BildGroß displays the large window with the image. TextMitEingabeFeldKlein displays the small window for the text and the input field. TextMitEingabeFeldGroß displays the large window for the text and the input field. Nichts displays no field.

5.1.1.6 Key words of the test step process control

Every test step has the following fields:

Key word	Explanation
Test	Non-localised name of the test step.
TestName	Localised name of the test step.
TestNameAbbr	Short name of the test step.
Execute	Indicates whether the test step is to be carried out. The value is always true . The value is reserved for future purposes.
InvertResult	The result valuation IO and NIO is replaced. This field is only used for dummy tests.
View	Indicates whether the test step is to be displayed. The value is reserved for future purposes.
Jump_IO_Mode	Indicates how the jump is to be carried out in the event of an IO event of the

Key word	Explanation
	test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_IO_Jump	Indicates the jump destination in the event of an IO result of the test step.
Jump_IO_Repeat	Indicates how often the test step is to be repeated in the event of an IO result of the test step. This value is always 0.
Jump_NIO_Mode	Indicates how the jump is to be carried out in the event of an NIO event of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_NIO_Jump	Indicates the jump destination in the event of an NIO result of the test step.
Jump_NIO_Repeat	Indicates how often the test step is to be repeated in the event of an NIO result of the test step.
Jump_Error_Mode	Indicates how the jump is to be carried out in the event of an error of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination This value is always 1.
Jump_Error_Jump	Indicates the jump destination in the event of an error of the test step.
Jump_Error_Repeat	Indicates how often the test step is to be repeated in the event of an error of the test step. This value is always 0.
Jump_Cancel_Mode	Indicates how the jump is to be carried out in the event of a cancellation of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_Cancel_Jump	Indicates the jump destination in the event of a cancellation of the test step.
Jump_Cancel_Repeat	Indicates how often the test step is to be repeated in the event of a

Key word	Explanation
	cancellation of the test step. This value is always 0.
TestStep	Sequential number of the step.

5.1.2 HTML templates

HTML templates can be created and edited with any program that is able to save in the file type. Depending on the program, you must observe corresponding framework conditions.

Problematic in this context is that some programmes break down the key words into parts when editing them and insert formatting instructions. In this case, the key word is no longer identified.

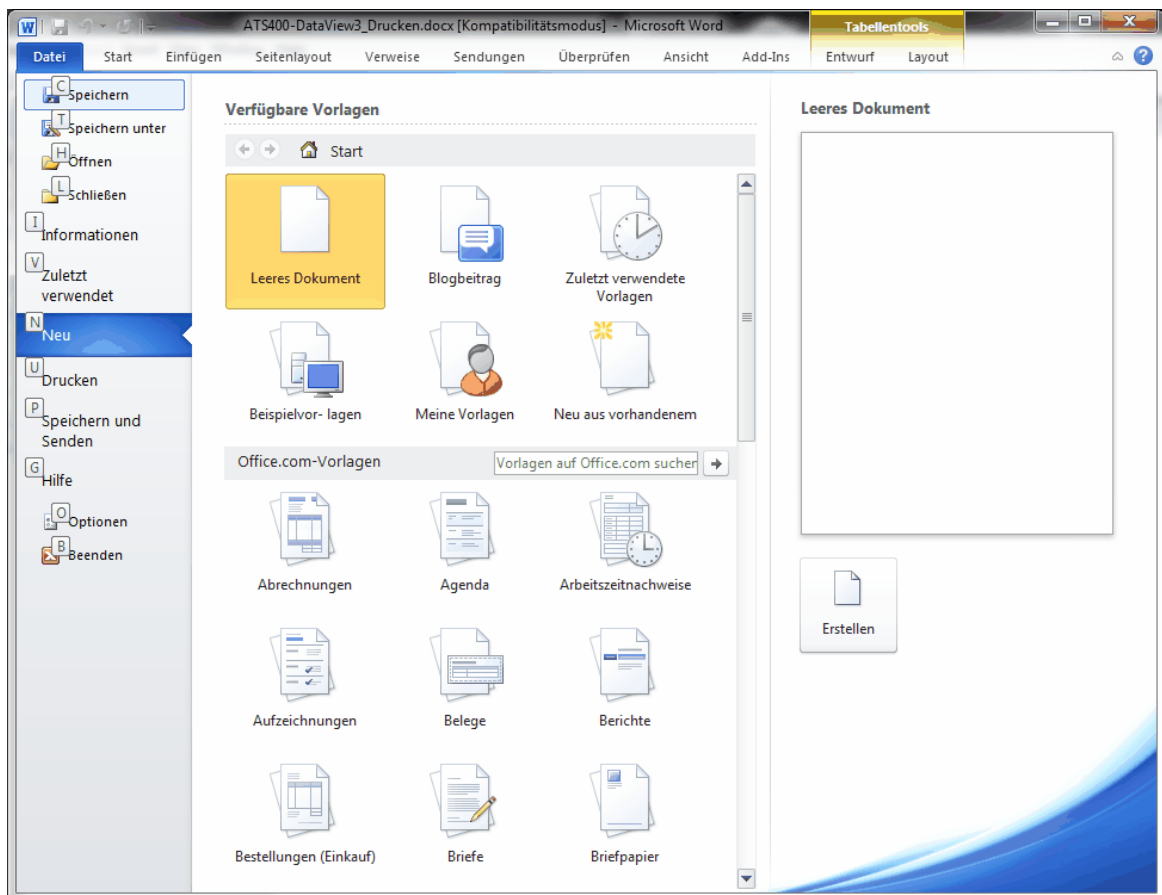
Use the HTML template; for the [Printer](#) or [Save as PDF](#) report option, the settings of the local Internet Explorer and of the printer are also required. The header and footer can be configured in the [Internet Explorer](#) in the [Page Setup](#) dialogue. The settings for the side orientation and paper size are made in the printer. The side edges must be set in the registration database with the [RegEdit](#) program from [Microsoft Windows](#).

[Creation with Microsoft Word 2010](#)

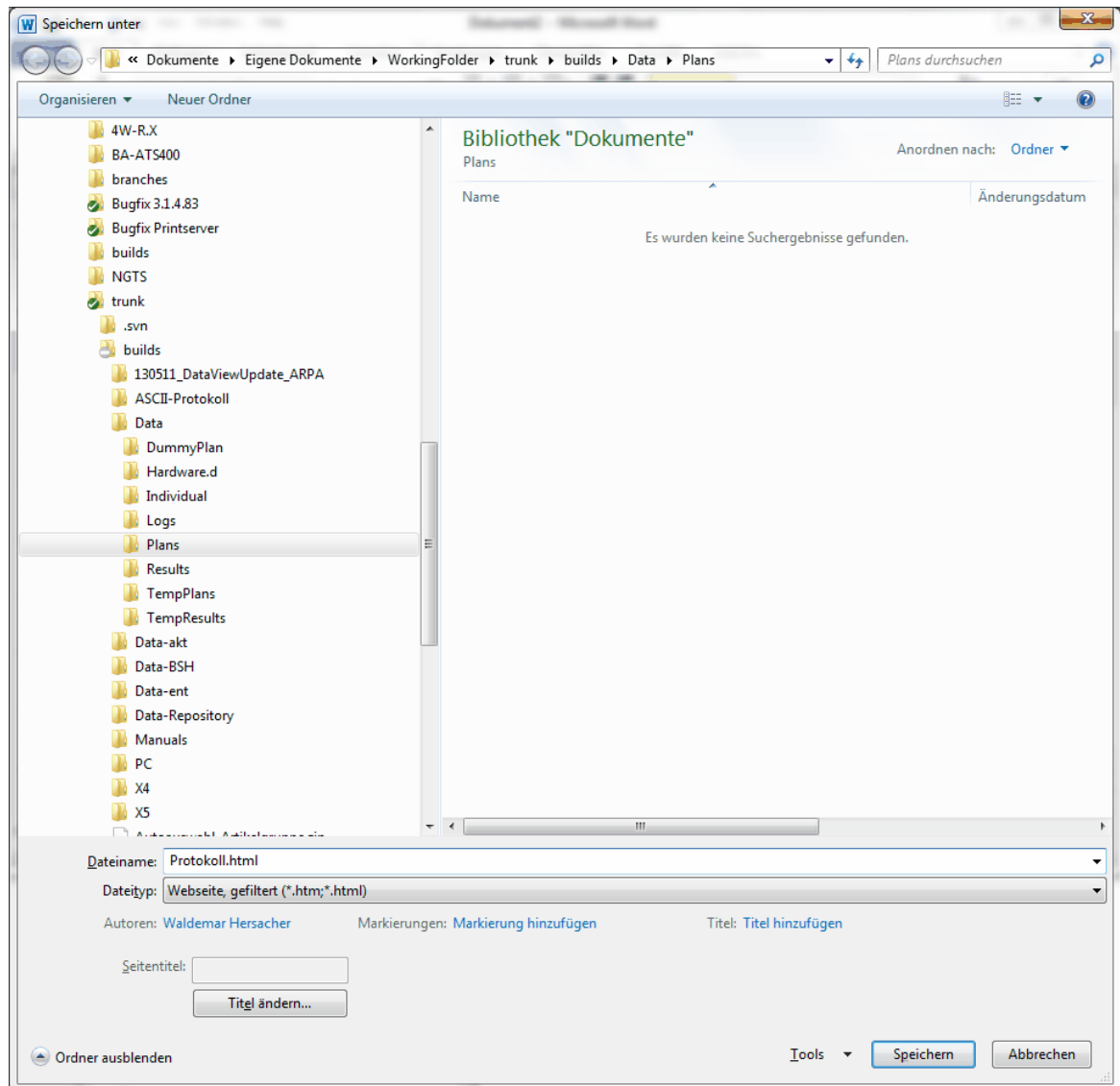
Creation with Open Office Writer

5.1.2.1 Creation with Microsoft Word 2012

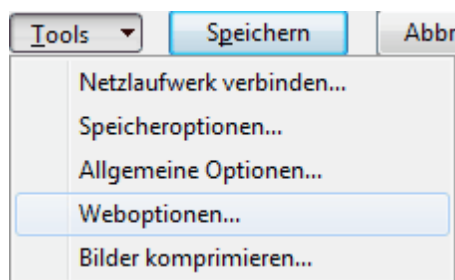
Create a new empty document or use a template already created by you.



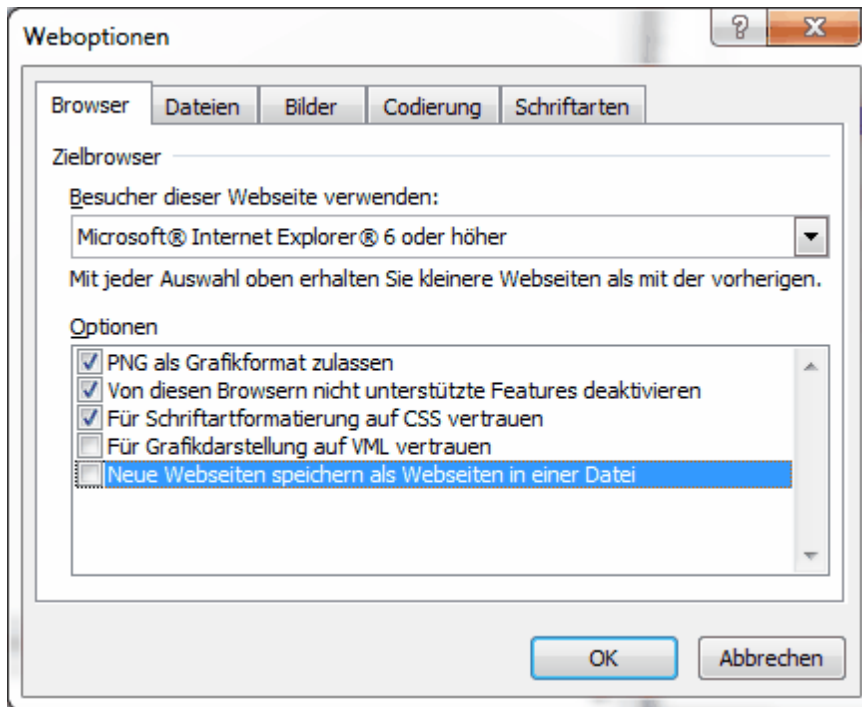
Save this document with **Save as** as a **Website, filtered (*.htm;*.html)** oder **website (*.htm;*.html)**. Note that you must edit the extension suggested from **htm** to **html** after setting all options.



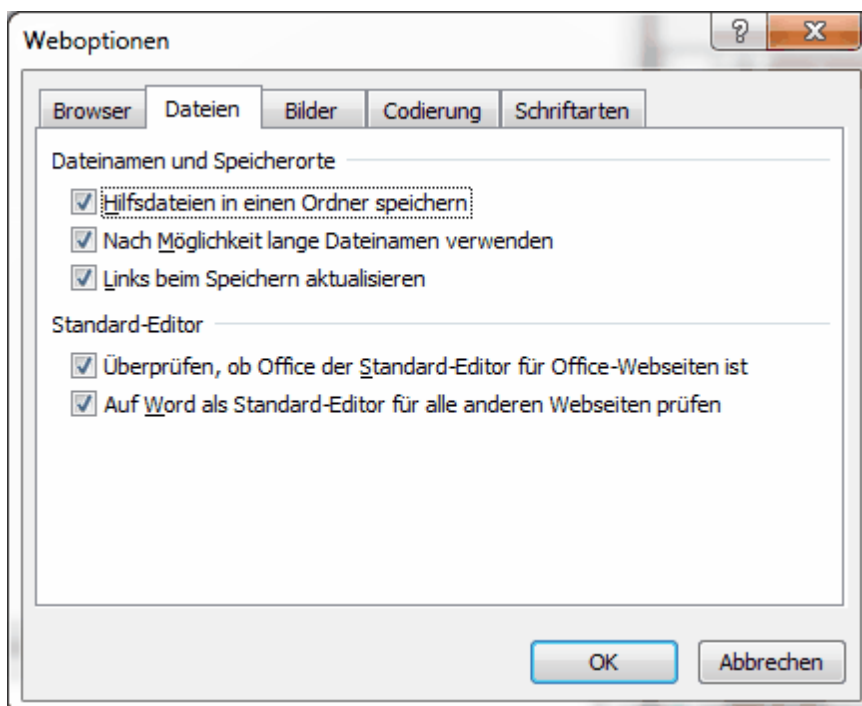
Under **Tools** open the dialogue **Web options...**



In the **Browser** tab, deactivate the **Save new websites as websites in a file** option.



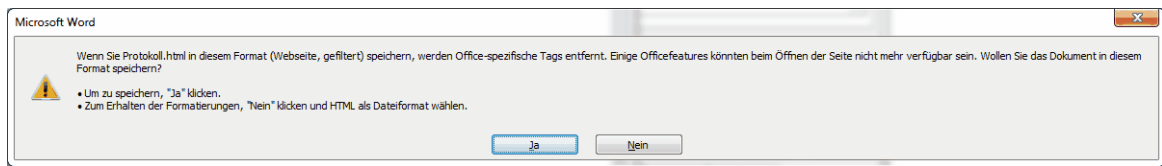
In the **Files** tab, activate the **Save help files in a folder** option.



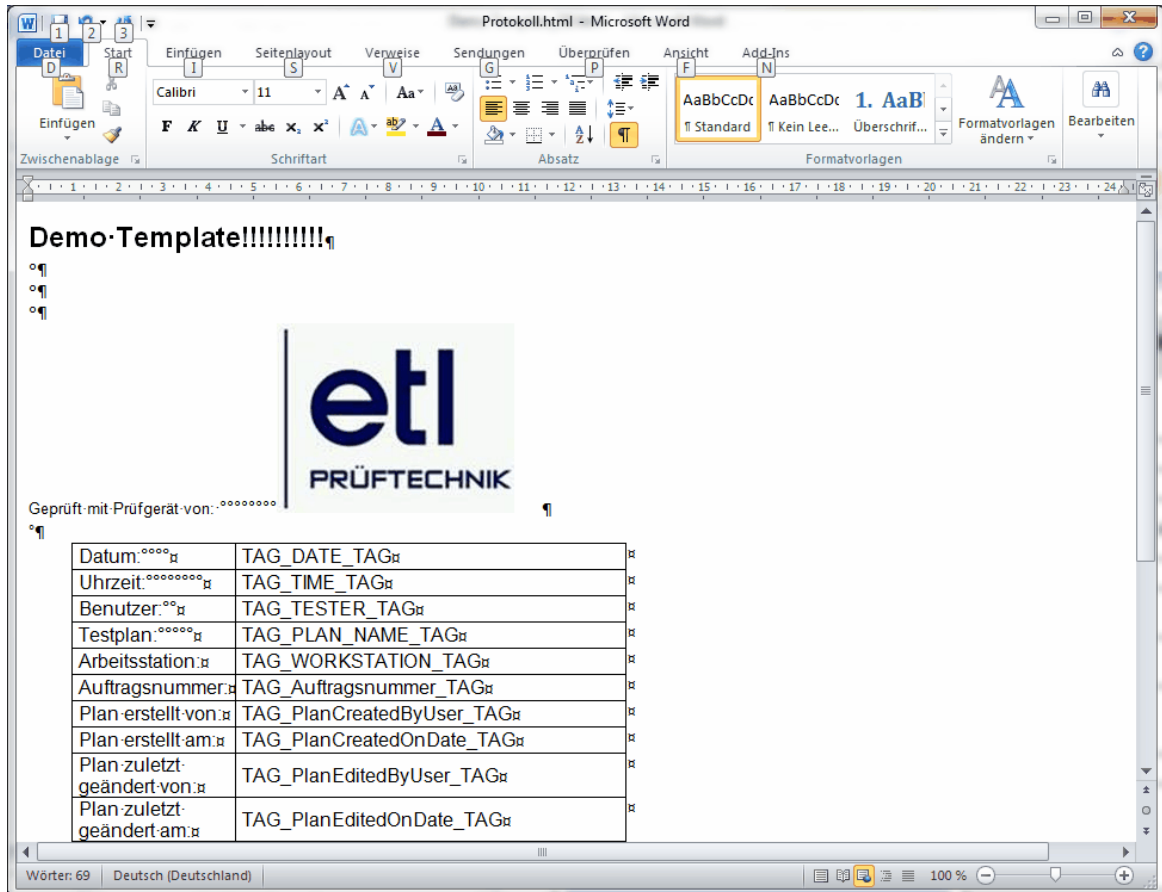
In the **Coding** tab, select from the **Save document as** selection the **Unicode (UTF8)** entry.

If you have selected **Website, filtered (*.htm;*.html)** you are given the

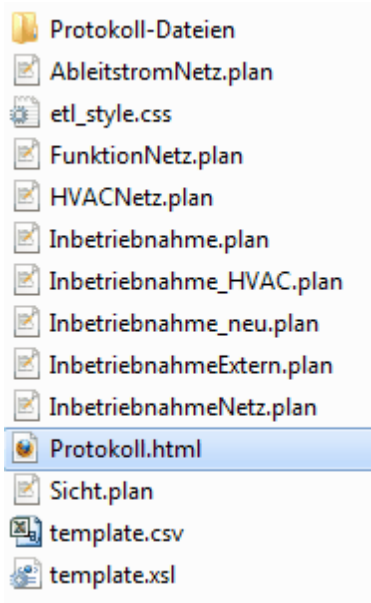
following warning. Click on the **Yes** button.



Create your report.



If you save the report, you are given a file and a folder. The help files can be found in the folder. If you need to copy or move the template, you always also need to copy or move the folder with it.



5.1.3 CSV templates

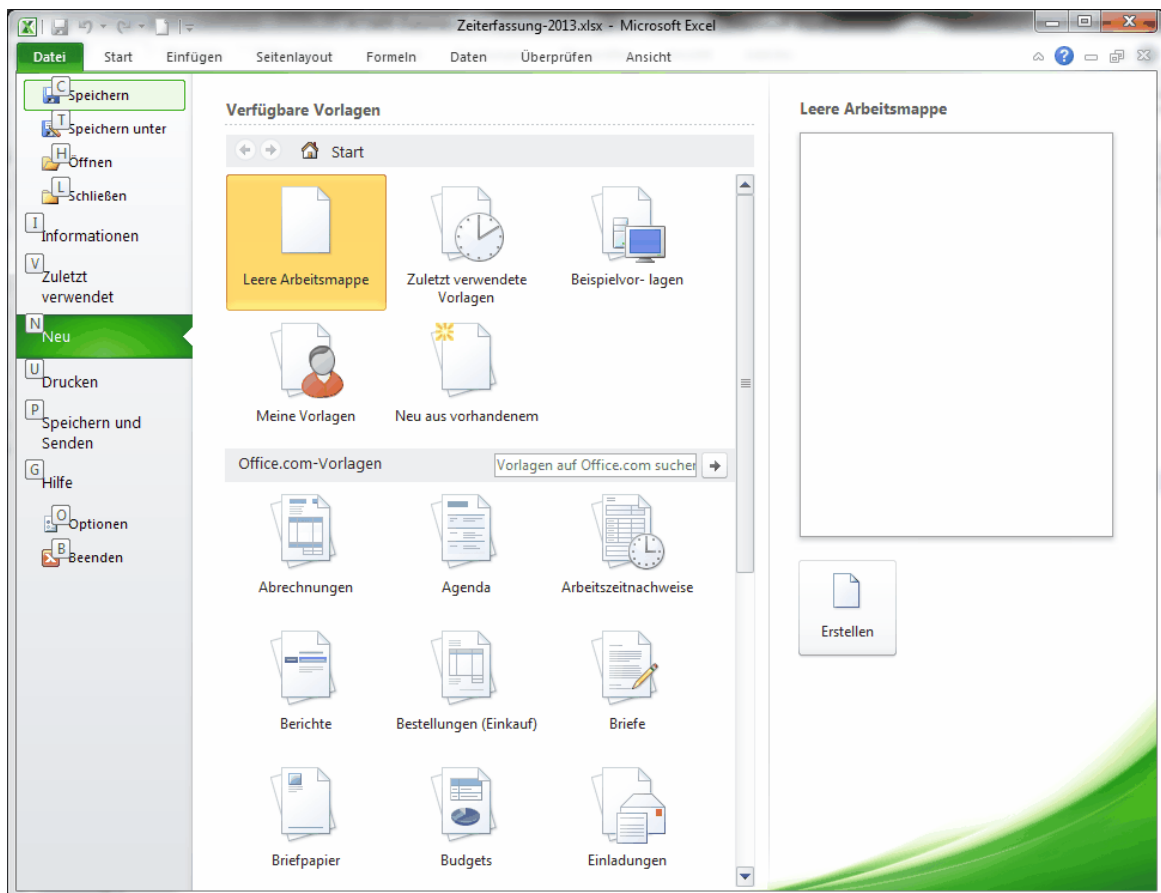
CSV is a text-based table format. You can edit it with every text editor or with most table calculations. If you do not use Microsoft Excel, it must be ensured that ISO-8859-15 is used as the character coding. If you create CSV files with the **ATS400 X4** or **ATS400 X5** device variants, it must be a 7-bit ASCII, which means that the illustration is compatible. In this case, no umlauts may be used.

[Creation with Microsoft Excel 2010](#)

Creation with Open Office Calc

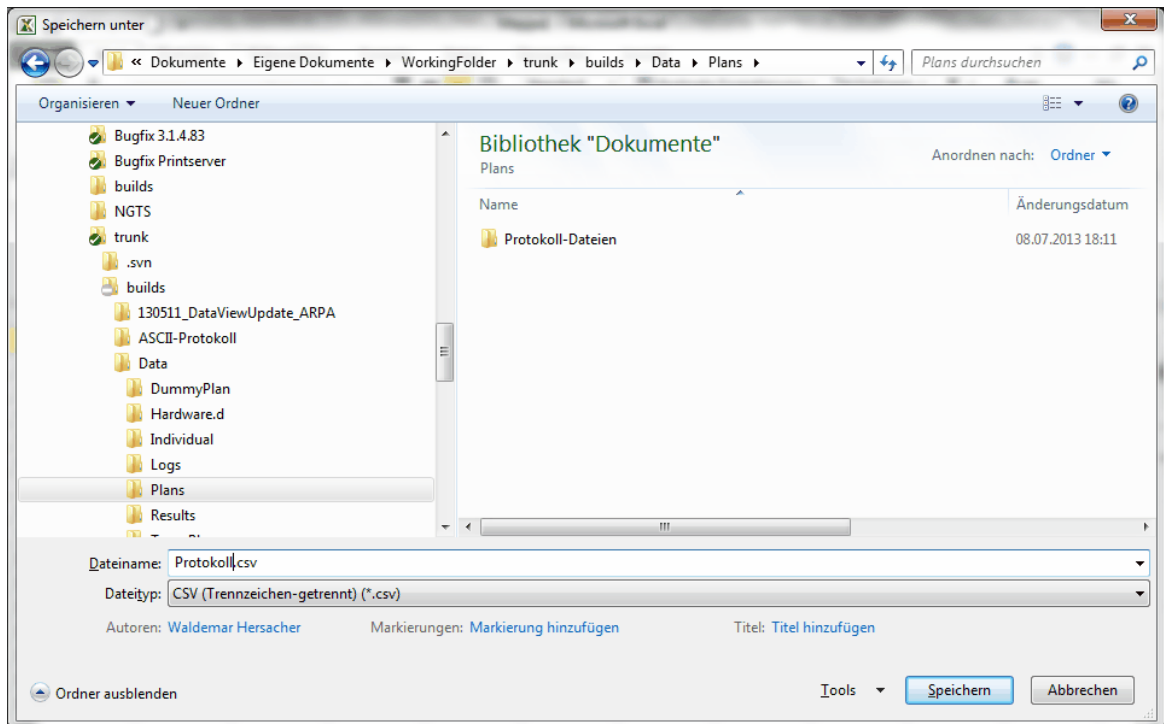
5.1.3.1 Creation with Microsoft Excel 2010

Create a new empty document or use a template already created by you.

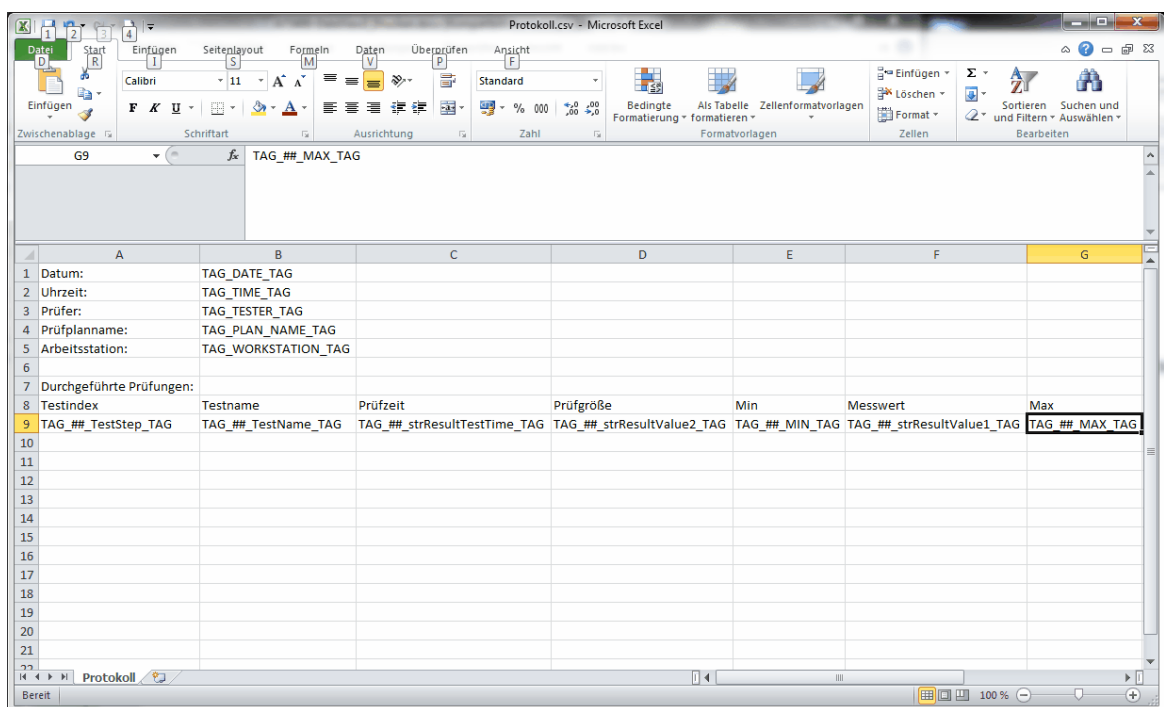


Delete all worksheets except for the first one.

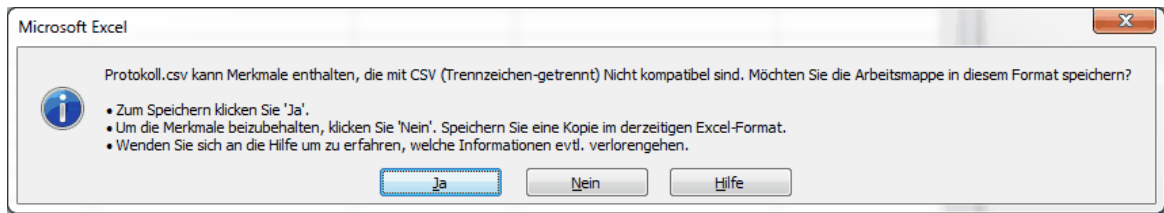
Save this document using **Save as** as a **CSV (separator-separated) (*.csv)**.



Create your report.



When saving, information is displayed to you. Click on the **Ok** button to save.



6 Reference

This area describes all files used by **ETL DataView 3** that are managed or created within **ETL DataView 3**.

[Results files](#)

[Plan files](#)

[Printserverkonfiguration](#)

[Matrixkonfiguration](#)

6.1 Patterns

At various places in the configuration patterns can be used. This patterns are used similar to [regular expressions](#).

A pattern consists of characters which have a special meaning. The following patterns are defined:

Description
[one character, e. g. A
" a string, e. g. Text
[a letter (a-z, A-Z)
[a cipher (0-9)
[an alphanumerical letter (a-z, A-Z, 0-9, _)
\ exact this character, e. g. \W at tis place a W is expected
(Extract the enclosed characters. Is used in the automatic test plan selection. It is not allowed to nest parantheses into each other.

Examples:

Description
(It is expected to enter 6 ciphers, e. g. 202201

Description
It is expected to enter 4 ciphers, a space and 4 ciphers, e. g. <i>0112 1000</i>
It is expected to enter 6 ciphers, a space, 4 ciphers, a space and 4 ciphers, e. g. <i>202201 0112 1000</i>
It is expected to enter 3 letters and two ciphers , e. g. <i>Typ25</i>

6.2 Protective earth test

The PE-measurement is realized int 4-wire technic. This means that the measurement cables have different wires for the current (source) and the voltage measurement (sense). These are connected together directly at the measurement point. Therefore the resistance of the measurement cable does not influence the result. This is true only for the effective resistance of the measurement cable but not for the inductivity and the resulting apperent resistance. Especially with small test resistance and

unfavourable installation could this lead to measure an increased resistance.

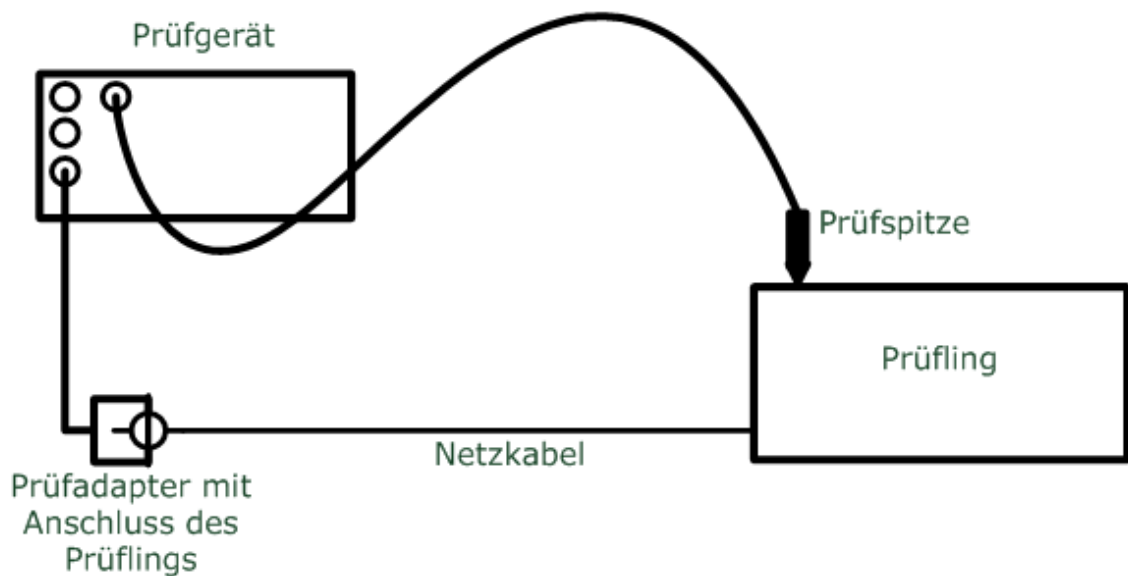
The resistance of the unit under test is normally a effective resistance. Errors resulting from the inductivity of the measurement cables will decrease with higer resistance of the unit under test. An apperent resistance of 10 mΩ for the measurement cable and 10 mΩ for the unit under test results in a measurement of 14 mΩ. With a unit under test of 50 mΩ the result will be 51 mΩ and with 100 mΩ it will be 100,5 mΩ.

In the case the inductivity of the measurement cable is disturbant the inductivity should be kept small. To achive this keep the aerea between the measurement cables small.

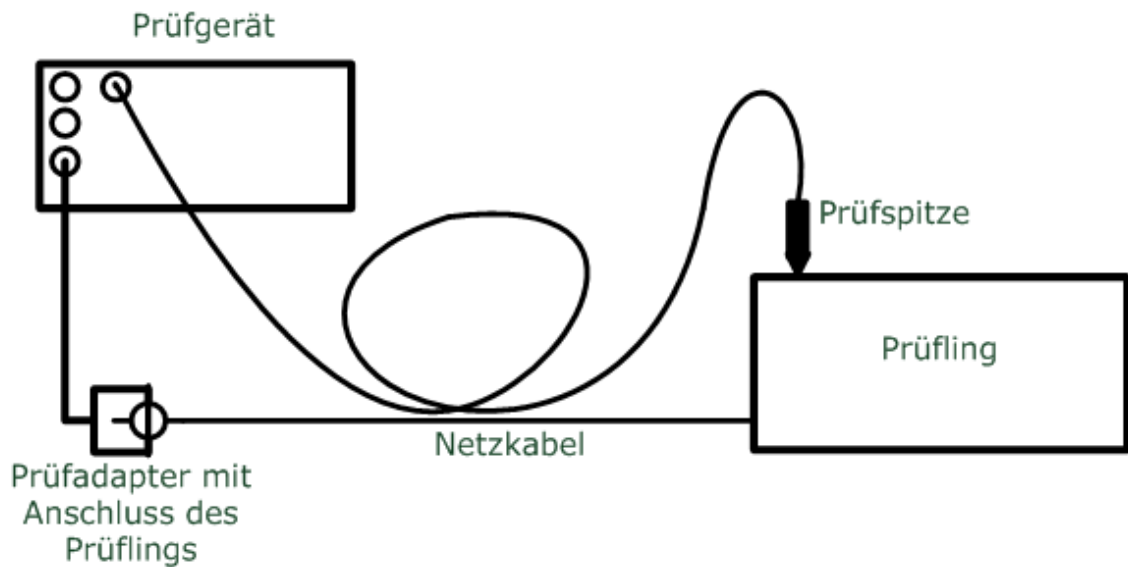
Additonally you must take care of a sufficent contact pressure to keep the contact resistance small.

6.2.1 Leading of the cable

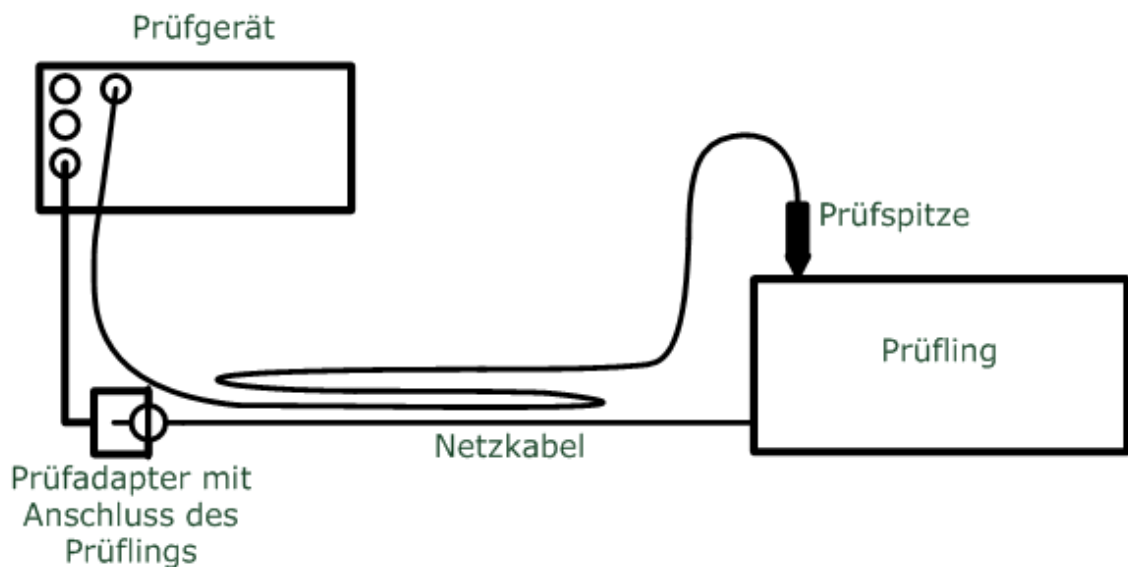
Some examples for leading of the wires.



Unfavourable leading of the measurement cable. A large area is spanned between the both measurement cables and therefore the apparent resistance will increase.



Also unfavourable leading of the measurement cables. The area between the measurement cables is smaller but the apparent resistance will increase due to the loop.



Favourable leading of the measurement wires. The area between the measurement cables is small keeping the apparent resistance small.

6.3 High voltage test

For the **ATS400** three groups of high voltage test modules are offered. These will be named in the following with their short names. The short name HVDC will be used if the text is valid for the HVDC8 and HVDC3 module.

Short name	Module
HVAC	Test with alternate current.
HVDC8	Test with direct current. These modules have a testing voltage of 5 kV or more.
HVDC3	Test with direct current. These modules have a testing voltage up to 3600 Volt and are current limited.

Information for configuration of the high voltage test you will find for [HVAC-Test](#), the [HVDC8-Test](#) and the [HVDC3-Test](#) in the part [test plan editing](#).

6.3.1 Evaluation of the measurement

6.3.1.1 Error messages for high voltage AC

Value	Description
0	No error
16	Upper current limit exceeded.
17	Break through detected with peak current.
18	Testing voltage not reached.
19	Lower current limit not reached.
20	Break through in ramp. Limit for spark detection exceeded.
21	Upper current during ramp exceeded.
22	Break through during static phase. Limit for spark detection exceeded.
23	Upper current limit during static phase exceeded.
24	Break through in ramp. Gradient for spark detection exceeded.
25	Break through during static phase. Gradient for spark detection exceeded.

6.3.1.2 Error messages for high voltage DC

Value	Description
0	No error
32	Upper current limit exceeded.
33	Break through detected with peak current.

Value	Description
34	Lower current limit not reached.
35	Break through.
36	Testing voltage not reached.
37	Break through in ramp. Limit for spark detection exceeded.
38	Upper current during ramp exceeded.
39	Break through during static phase. Limit for spark detection exceeded.
40	Upper current limit during static phase exceeded.
41	Break through in ramp. Gradient for spark detection exceeded.
42	Break through during static phase. Gradient for spark detection exceeded.

6.3.1.3 Test for required voltage

After powering on resp. at the end of the ramp when the current voltage does not change any more it is checked that the current voltage has reached more than 95% of the voltage in parameter **Test voltage**.

6.3.1.4 Current error at upper limit

This error will be detected when the measured current exceeds the current in parameter **Maximum Current**.

This evaluation will be done in the following cases:

Phase	HVAC	HVDC
Rising ramp	Yes	No
Static	Yes	Yes
Falling ramp	Yes	No

6.4 Results files

The results files have the extension **.result**. The place of saving and the file name result from the details in **Settings** -> **File storage** -> **Result**. This file has the format of an XML file with UTF-8 coding with BOM.

<ResultData> is the enclosing tag.

<ResultData>/<Header> contains the header data.

<ResultData>/<Identification> contains the identifications.

<ResultData>/<TestSteps> contains the list of test steps.

<ResultData>/<TestSteps>/<TestStep Index="n"> contains a test step. The number in **Index** is incremented for every test step.

<ResultData>/<Result> contains the overall result as well as the data of the

automatic test plan selection.

[<ResultData>/PlanOptionen](#) contains the options of the test plan.

[<ResultData>/PlanOptionen/<ReportOptionen>](#) contains the list of reports to be created.

[<ResultData>/PlanOptionen/<ReportOptionen>/<ReportOption>](#) contains the report settings for a report.

[<ResultData>/<Validation>](#) contains validation data.

6.4.1 Header

The data in this block can be found under [<ResultData>/<Header>](#).

Tag	Explanation
DataView_Version	Version of ETL DataView 3 with which this file was created.
TestPlan_Version	Version of the format of the file.
PlanName	Name of the test plan, is filled with the file name when being created.
PlanPath	Relative path to the application where the test plan was saved.
PlanDescription	Description of the test plan. This value can be entered by the user in Settings -> Text .
PlanCreatedByUser	User who created the test plan first. If user administration is not active, the field is empty.
PlanCreatedByWorkstation	Test station where the test plan was created. The name of the test station can be stated in Settings -> Workstation -> Base settings .
PlanCreatedOnDate	Date of creating the test plan. The date is in the format in accordance with the country settings valid at this moment in time.
PlanEditedByUser	User who modified the test plan last. If user administration is not active, the field is empty.
PlanEditedByWorkstation	Test station where the test plan was modified last. The name of the test station can be stated in Settings -> Workstation -> Base settings .
PlanEditedOnDate	Date of modifying the test plan. The date is in the format in accordance with the country settings valid at this moment in time.
FileSavedByUser	User who saved the test plan or the result file.
FileSavedByWorkstation	Test station where the test plan or the result file was saved. The name of the test station can be stated in Settings -> Workstation -> Base settings .
FileSavedOnDate	Date of saving the test plan or the result file. The date is in the format in accordance with the country

Tag	Explanation
	settings valid at this moment in time.
<code>PlanIdentificationEnabled</code>	The <code><ResultData>\<Identification></code> block exists.
<code>PlanBatchEnabled</code>	Intended for future purposes.
<code>PlanTestSteps</code>	Number of test steps in the test plan.

6.4.2 Identification

The data in this block can be found under `<ResultData>/<Identification>`.

Tag	Explanation
<code>IDs</code>	Number of IDs.
<code>ID_n</code>	Identification for the test plan. The tags are numbered from 0 to the number of IDs - 1, i.e. have the values ID_0, ID_1, etc.

6.4.3 Teststeps

The data in this block can be found under `<ResultData>/<TestSteps>`.

This block contains a list of the individual test steps. Every test step is a [block](#) of its own.

6.4.3.1 TestStep

The data in this block can be found under `<ResultData>/<TestSteps>/<TestStep Index="n">`.

Attribute	Explanation
<code>Index</code>	Index of the test step, counting starts from 0

Tag	Explanation
<code>Test</code>	ID of the test type
<code>TestName</code>	Non-localised name of the test step.
<code>Execute</code>	Indicates whether the test step is to be carried out. The value is always <code>true</code> . The value is reserved for future purposes.
<code>InvertResult</code>	The result valuation IO and NIO is replaced. This field is only used for dummy tests.
<code>View</code>	Indicates whether the test step is to be displayed. The value is reserved for future purposes.
<code>Parameter</code>	Number of parameters of this test step. The number of parameters depends on the test step.

Tag	Explanation
Parameter_n	Parameter of the test step. These parameters are explained individually for every test type.
Jump	This fields always has the value Jump .
Jump_IO_Mode	Indicates how the jump is to be carried out in the event of an IO event of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_IO_Jump	Indicates the jump destination in the event of an IO result of the test step.
Jump_IO_Repeat	Indicates how often the test step is to be repeated in the event of an IO result of the test step. This value is always 0.
Jump_NIO_Mode	Indicates how the jump is to be carried out in the event of an NIO event of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_NIO_Jump	Indicates the jump destination in the event of an NIO result of the test step.
Jump_NIO_Repeat	Indicates how often the test step is to be repeated in the event of an NIO result of the test step.
Jump_Error_Mode	Indicates how the jump is to be carried out in the event of an error of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination This value is always 1.
Jump_Error_Jump	Indicates the jump destination in the event of an error of the test step.
Jump_Error_Repeat	Indicates how often the test step is to be repeated in the event of an error of the test step. This value is always 0.
Jump_Cancel_Mode	Indicates how the jump is to be carried out in the event of a cancellation of the test step. 0 -> Next step 1 -> Go to the end 2 -> Go to a jump destination
Jump_Cancel_Jump	Indicates the jump destination in the event of a cancellation of the test step.
Jump_Cancel_Repeat	Indicates how often the test step is to be repeated in the event of a cancellation of the test step. This value is always 0.
Text	Immer 3.

Tag	Explanation
<code>Text_0</code>	Text to be output with indication beforehand.
<code>TextEnable_0</code>	Activation of the output with indication beforehand.
<code>TextSize_0</code>	Font size with indication beforehand.
<code>Picture_0</code>	File name of the image with indication beforehand. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Outputtype_0</code>	Image or text display with indication beforehand. Values used: <code>Text</code> displays the text only. <code>Bild</code> displays the image only. <code>TextBild</code> displays the text and the image. <code>TextWithInputField</code> displays the text and an input field.
<code>OutputSize_0</code>	Small or large display with indication beforehand Values used: <code>TextKlein</code> displays the small window for the text. <code>TextGroß</code> displays the large window for the text. <code>BildKlein</code> displays the small window with the image. <code>BildGroß</code> displays the large window with the image. <code>TextMitEingabeFeldKlein</code> displays the small window for the text and the input field. <code>TextMitEingabeFeldGroß</code> displays the large window for the text and the input field. <code>Nichts</code> displays no field.
<code>Text_1</code>	Text to be output with indication during.
<code>TextEnable_1</code>	Activation of the output with indication during.
<code>TextSize_1</code>	Font size with indication during.
<code>Picture_1</code>	File name of the image with indication during. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Outputtype_1</code>	Image or text display with indication during Values used: <code>Text</code> displays the text only. <code>Bild</code> displays the image only. <code>TextBild</code> displays the text and the image. <code>TextWithInputField</code> displays the text and an input field.
<code>OutputSize_1</code>	Small or large display with indication during. Values used: <code>TextKlein</code> displays the small window for the text. <code>TextGroß</code> displays the large window for the text. <code>BildKlein</code> displays the small window with the image.

Tag	Explanation
	BildGroß displays the large window with the image. TextMitEingabeFeldKlein displays the small window for the text and the input field. TextMitEingabeFeldGroß displays the large window for the text and the input field. Nichts displays no field.
Text_2	Text to be issued in the event of error.
TextEnable_2	Activation of the output in the event of an error.
TextSize_2	Font size in the event of an error.
Picture_2	File name of the image in the event of an error. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
Outputtype_2	Image or text display in the event of an error. Values used: Text displays the text only. Bild displays the image only. TextBild displays the text and the image. TextWithInputField displays the text and an input field.
OutputSize_2	Small or large display in the event of an error. Values used: TextKlein displays the small window for the text. TextGroß displays the large window for the text. BildKlein displays the small window with the image. BildGroß displays the large window with the image. TextMitEingabeFeldKlein displays the small window for the text and the input field. TextMitEingabeFeldGroß displays the large window for the text and the input field. Nichts displays no field.
Tags	Number of the field names of the test step. This value is 0, except for the batch and data input test steps.
TagName_n	Name of the field. The n postfix corresponds to the number of the field counted from 0. This entry only exists if Tags is not equal to 0.
TagData_n	Pre-occupation or sample of the field. The n postfix corresponds to the number of the field counted from 0. This entry only exists if Tags is not equal to 0.
Template	Outdated, is no longer used.
Show	Indicates whether a user notice is displayed before the multiple test.
Size	Font size of the text for a multiple test.

Tag	Explanation
Text	Text to be issued in the event of a multiple test.
Display	Image or text display in the event of a multiple test. Values used: Text displays the text only. Bild displays the image only. TextBild displays the text and the image. TextWithInputField displays the text and an input field.
PicturePath	File name of the image in the event of a multiple test. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
StepCycleTime	Duration of the test.
Count_Tests	Total number of tests carried out.
Count_IO	Number of times this step was successfully carried out.
Count_NIO	Number of times not carried out successfully.
Count_ERROR	Number of cancelled tests.
Result	Result of the test step: UnTested -> This test step was not carried out during this test. Active -> Test step is active, cannot occur in the file. IO -> This test step was rated as IO. NIO -> This test step was rated as NIO. ERROR -> This test step was cancelled with an error. Jumped -> This test step was skipped.
ResultValue_1	Numeric measurement value in SI unit.
ResultValue_2	Numeric value of the test size in SI units.
TestTime	Formatted duration of the test in seconds.
Error	Indication of the error when cancelling the measurement. None -> No error Timeout_StartMeasurement -> Time error when starting the measurement Timeout_SetPassFail -> not used Timeout_MeasureTimeOvershoot -> measurement time exceeded Invalid_TestState -> invalid test status Invalid_TestResult -> invalid test result Invalid_PVSteuerLT -> invalid control word Invalid_PVStatusPruefung -> invalid status of the test Invalid_TestParameter -> invalid test parameter Cancel -> cancelled

Tag	Explanation
ErrorInfo	Expanded error number.
TestPoint_n	User input for the multitest. The n post fix is counted upwards from 0.
TestingUser	User logged in during the test step.
SightCheckInputText	User entry during the visual inspection.
MultitestUser_n	User logged in during the multitest. The n post fix is counted upwards from 0.

6.4.3.1.1 Protective Earth

Parameters of the **Protective Earth** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	U	Idle voltage
Parameter_3	I	Test current
Parameter_4	R_max	Upper threshold value of the resistance.
Parameter_5	t	Test time
Parameter_6	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_7	f	Frequency of the voltage
Parameter_8	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_9	EN60204	Indication whether the test is performed in accordance with EN 60204. Always 0.
Parameter_10	Polung	Contacting setting of an external relay matrix.
Parameter_11 bis Parameter_26	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The

Tag	Parameter	Explanation
		display is bit coded.
Parameter_27	StateChangeBits	Always 0, never used.
Parameter_28	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_29	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_30	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_31	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_32	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_33	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_34	ErrorStateChangeBits	Always 0, never used.
Parameter_35	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_36	ErrorWSBTimeValid	Delay time active.
Parameter_37	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_38	DC_Enable	Indicates whether the test is carried out with direct current voltage. 0: Alternating current 1: Direct current
Parameter_39	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_40	Repeating	Indicates how often the test step is carried out.
Parameter_41	StartButton	Indicates whether the Start button is displayed.
Parameter_42	PassButton	Indicates whether the Pass button is displayed.
Parameter_43	StartandJump	Indicates whether the Start and Jump buttons are displayed.

Tag	Parameter	Explanation
Parameter_44	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_45	StartPETime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_46	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_47	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .
Parameter_48	PassButtonVisible	Indicates whether the button Pass will be shown during a Multitest.

6.4.3.1.2 High voltage AC

Parameters of the **High voltage AC** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	U	Test voltage
Parameter_3	I_min	Lower threshold
Parameter_4	I_max	Upper threshold
Parameter_5	t	Test duration
Parameter_6	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_7	Ramp	Indicates whether the ramp is active.
Parameter_8	U_start	Start voltage
Parameter_9	t_up	Increase time of the ramp. This parameter is only valid if the ramp is active.
Parameter_10	t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.

Tag	Parameter	Explanation
Parameter_11	f	Frequency of the voltage
Parameter_12	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_13	Polung	Contacting setting of an external relay matrix.
Parameter_14 bis Parameter_29	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_30	StateChangeBits	Always 0, never used.
Parameter_31	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_32	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_33	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_34	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_35	Offset	Always 0, will not be used.
Parameter_36	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_37	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_38	ErrorStateChangeBits	Always 0, never used.
Parameter_39	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_40	ErrorWSBTimeValid	Delay time active.
Parameter_41	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_42	Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.
Parameter_43	f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.

Tag	Parameter	Explanation
Parameter_44	U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Parameter_45	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_46	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_47	Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal
Parameter_48	Repeating	Indicates how often the test step is carried out.
Parameter_49	StartButton	Indicates whether the Start button is displayed.
Parameter_50	PassButton	Indicates whether the Pass button is displayed.
Parameter_51	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_52	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_53	CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Parameter_54	Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
Parameter_55	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_56	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_57	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_58	StartSHKHVTime_De	Wait time for the signal Safety Circuit

Tag	Parameter	Explanation
	lay	HV , in case the start condition is monitored .
Parameter_59	PassButtonVisible	Indicates whether the button Pass will be shown during a Multitest.
Parameter_60	SparkDetection	This parameter is only valid on devices with HVDC8 module and a HMP supporting spark detection. Setting of the spark detection. 0 = Off 1 = Coarse 2 = Normal 3 = Fine
Parameter_61	ContinousRamp	Indicates that the ramp will be continued after the test step. This parameter is only valid for the variant for KWP protocol and high voltage tester of Series 36. 0: Ramp will not be continued 1: Ramp will be continued

6.4.3.1.3 High voltage DC

Parameters of the [High voltage DC](#) test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	U	Test voltage
Parameter_3	I_min	Lower threshold
Parameter_4	I_max	Upper threshold
Parameter_5	t	Test duration
Parameter_6	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_7	Ramp	Indicates whether the ramp is active.
Parameter_8	U_start	Start voltage
Parameter_9	t_up	Increase time of the ramp. This

Tag	Parameter	Explanation
		parameter is only valid if the ramp is active.
Parameter_10	t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.
Parameter_11	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_12	U_discharge	Discharge voltage
Parameter_13	Polung	Contacting setting of an external relay matrix.
Parameter_14 bis Parameter_29	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_30	StateChangeBits	Always 0, never used.
Parameter_31	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_32	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_33	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_34	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_35	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_36	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_37	ErrorStateChangeBits	Always 0, never used.
Parameter_38	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_39	ErrorWSBTimeValid	Delay time active.
Parameter_40	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_41	Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.

Tag	Parameter	Explanation
Parameter_42	f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.
Parameter_43	U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Parameter_44	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_45	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_46	Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal
Parameter_47	Repeating	Indicates how often the test step is carried out.
Parameter_48	StartButton	Indicates whether the Start button is displayed.
Parameter_49	PassButton	Indicates whether the Pass button is displayed.
Parameter_50	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_51	CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Parameter_52	Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
Parameter_53	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_54	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_55	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .

Tag	Parameter	Explanation
Parameter_56	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .
Parameter_57	PassButtonVisible	Indicates whether the button Pass will be shown during a Multitest.
Parameter_58	SparkDetection	This parameter is only valid on devices with HVDC8 module and a HMP supporting spark detection. Setting of the spark detection. 0 = Off 1 = Coarse 2 = Normal 3 = Fine
Parameter_59	ContinousRamp	Indicates that the ramp will be continued after the test step. This parameter is only valid for the variant for KWP protocol and high voltage tester of Series 36. 0: Ramp will not be continued 1: Ramp will be continued

6.4.3.1.4 Insulation

Parameters of the **Insulation** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	U	Test voltage
Parameter_3	R_min	Lower threshold of the insulation resistance.
Parameter_4	t	Test duration
Parameter_5	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_6	Ramp	Indicates whether the ramp is active.
Parameter_7	U_start	Start voltage
Parameter_8	t_up	Increase time of the ramp. This

Tag	Parameter	Explanation
		parameter is only valid if the ramp is active.
Parameter_9	t_down	Drop time of the ramp. This parameter is only valid if the ramp is active.
Parameter_10	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_11	U_discharge	Discharge voltage
Parameter_12	Polung	Contacting setting of an external relay matrix.
Parameter_13 bis Parameter_28	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_29	StateChangeBits	Always 0, never used.
Parameter_30	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_31	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_32	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_33	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_34	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_35	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_36	ErrorStateChangeBits	Always 0, never used.
Parameter_37	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_38	ErrorWSBTimeValid	Delay time active.
Parameter_39	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_40	Quelle	Selected current source. This parameter is only used in the event of a hot high voltage.

Tag	Parameter	Explanation
Parameter_41	f_Source	Frequency of the source. This parameter is only used in the event of a hot high voltage.
Parameter_42	U_Source	Voltage of the source. This parameter is only used in the event of a hot high voltage.
Parameter_43	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_44	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_45	Auswertung	Type of the analysis of the test. 0 = end the test time 1 = end with start signal
Parameter_46	Repeating	Indicates how often the test step is carried out.
Parameter_47	StartButton	Indicates whether the Start button is displayed.
Parameter_48	PassButton	Indicates whether the Pass button is displayed.
Parameter_49	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_50	CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Parameter_51	Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
Parameter_52	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_53	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_54	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .

Tag	Parameter	Explanation
Parameter_55	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .
Parameter_56	PassButtonVisible	Indicates whether the button Pass will be shown during a Multitest.

6.4.3.1.5 FCT-Current

Parameters of the **FCT-Current** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	U_Source	Source of the test supply.
Parameter_3	U	Voltage of the test item supply
Parameter_4	I_min	Lower threshold value during the analysis. Not valid if the analysis is set to Pass/Fail . The unit and thresholds depend on the channel.
Parameter_5	I_max	Upper threshold value during the analysis. Not valid if the analysis is set to Pass/Fail . The unit and thresholds depend on the channel.
Parameter_6	t	Test time
Parameter_7	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_8	f	Frequency of the voltage
Parameter_9	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_10	t_timeout	Timeout for the start of the analysis. The value is not used for all start scenarios.
Parameter_11	Gradient	Gradient for the start of the analysis. This value is not used for all start

Tag	Parameter	Explanation
		scenarios.
Parameter_12	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_13	Scenario	Type of the start of the analysis
Parameter_14	Polung	Contacting setting of an external relay matrix.
Parameter_15 bis Parameter_30	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_31	Auswertung	Type of the analysis 0 = measurement 1 = Pass/Fail button
Parameter_32	StateChangeBits	Always 0, never used.
Parameter_33	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_34	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_35	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_36	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_37	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_38	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_39	ErrorStateChangeBits	Always 0, never used.
Parameter_40	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_41	ErrorWSBTimeValid	Delay time active.
Parameter_42	Kanal	Measurement channel 0 = current 1 = analogue channel1 2 = analogue channel2 3 = analogue channel3 4 = analogue channel4

Tag	Parameter	Explanation
		5 = voltage measurement Starting with IO-CPU 33329 6 = analogue channel1 on the second interface 7 = analogue channel2 on the second interface 8 = analogue channel3 on the second interface 9 = analogue channel4 on the second interface
Parameter_43	SourceIsDC	External source provides direct current voltage
Parameter_44	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_45	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_46	Graphic	Type of the graphics settings 0 = no graphics 1 = only display graphic 2 = display and save graphic
Parameter_47	Repeating	Indicates how often the test step is carried out.
Parameter_48	StartButton	Indicates whether the Start button is displayed.
Parameter_49	PassButton	Indicates whether the Pass button is displayed.
Parameter_50	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_51	CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Parameter_52	Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
Parameter_53	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_54	StartPETime_Delay	Wait time for the signal PE-Testprobe ,

Tag	Parameter	Explanation
		in case the start condition is monitored .
Parameter_55	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_56	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.6 Leakage current

Parameters of the **Leakage current** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	Messmodell	Measurement model used.
Parameter_3	Messmethode	Measurement method used. 0: Protective conductor current 1: Housing discharge current
Parameter_4	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_5	U_Source	Source of the test supply.
Parameter_6	U	Voltage of the test item supply
Parameter_7	I_max	Upper threshold for the discharge current.
Parameter_8	t	Test time
Parameter_9	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_10	f	Frequency of the voltage
Parameter_11	t_start	Will not be used.

Tag	Parameter	Explanation
Parameter_12	Auswertung	Measurement channel used for the test: 0: I AC rms 1: I DC 2: I min 3: I max 4: I rms
Parameter_13	Polaritaet	Polarity used of the supply of the test item. For single-phase test item: 0: Automotive 1: L1-> PE 2: L2-> PE 3: Mode B 4: Automatic with first error 5: L1 -> PE with first error 6: L2 -> PE with first error With three-phase test item: 0: Clockwise rotation 1: Counterclockwise rotation
Parameter_14	SelftestMode	Always 0.
Parameter_15	Polung	Contacting setting of an external relay matrix.
Parameter_16 bis Parameter_31	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_32	StateChangeBits	Always 0, never used.
Parameter_33	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_34	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_35	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_36	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_37	I_Min	Lower threshold for the discharge current.
Parameter_38	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_39	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.

Tag	Parameter	Explanation
Parameter_40	ErrorStateChangeBits	Always 0, never used.
Parameter_41	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_42	ErrorWSBTimeValid	Delay time active.
Parameter_43	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_44	Phase	Number of phases of the test item.
Parameter_45	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_46	Repeating	Indicates how often the test step is carried out.
Parameter_47	StartButton	Indicates whether the Start button is displayed.
Parameter_48	PassButton	Indicates whether the Pass button is displayed.
Parameter_49	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_50	CreateLog	Indicates whether a log file will be created. 0 = No log file will be created 1 = A log file be created
Parameter_51	Timeinterval	Time interval between two samples which will be written to the log file. The value is in seconds. This value will only be used in case the value in CreateLog is 1.
Parameter_52	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_53	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_54	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_55	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.7 Sight check

Parameters of the **Sight check** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_3	StateChangeBits	Always 0, never used.
Parameter_4	Abfrage	Mode for termination.
Parameter_5	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_6	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_7	Repeating	Indicates how often the test step is carried out.
Parameter_8	StartButton	Indicates whether the Start button is displayed.
Parameter_9	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_10	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_11	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_12	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_13	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.8 Data input

Parameters of the **Data Input** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	Polung	Contacting setting of an external relay matrix.
Parameter_3 bis Parameter_17	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_18	StateChangeBits	Always 0, never used.
Parameter_19	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_20	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_21	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_22	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_23	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_24	Eingabmasken	Bit samples containing screen fields instead of requirements.
Parameter_25	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_26	Repeating	Indicates how often the test step is carried out.
Parameter_27	StartButton	Indicates whether the Start button is displayed.
Parameter_28	PassButton	Indicates whether the Pass button is displayed.
Parameter_29	StartandJump	Indicates whether the Start and Jump

Tag	Parameter	Explanation
		buttons are displayed.
Parameter_30	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_31	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_32	StartTimeKU_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_33	StartTimeSHKHV_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.9 Batch run

Parameters of the **Batch run** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	Polung	Contacting setting of an external relay matrix.
Parameter_3 bis Parameter_18	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_19	StateChangeBits	Always 0, never used.
Parameter_20	SettingFlags	Settings that indicate that certain fields are configured at other locations. This field is bit coded.
Parameter_21	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_22	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_23	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key

Tag	Parameter	Explanation
Parameter_24	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_23	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_26	Eingabmasken	Bit samples containing screen fields instead of requirements.
Parameter_27	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_28	Repeating	Indicates how often the test step is carried out.
Parameter_29	StartButton	Indicates whether the Start button is displayed.
Parameter_30	PassButton	Indicates whether the Pass button is displayed.
Parameter_31	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_32	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_33	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_34	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_35	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.10 User-Interface

Parameters of the **User-Interface** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.

Tag	Parameter	Explanation
Parameter_2	In	Entry bits
Parameter_3	InMask	Mask for entry bits.
Parameter_4	Out	Output bits
Parameter_5	OutMask	Mask for output bits.
Parameter_6	Duration	Duration of the output pulse.
Parameter_7	Timeout	Timeout when waiting for the status of the entry bits. This parameter is only valid if the TimeoutEnable parameter is set.
Parameter_8	TimeoutEnable	States whether timeout is used. 0: Timeout is not used 1: Timeout is used
Parameter_9	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_10	Polung	Contacting setting of an external relay matrix.
Parameter_11 bis Parameter_26	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_27	StateChangeBits	Always 0, never used.
Parameter_28	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_29	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_30	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_31	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_32	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_33	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_34	ErrorStateChangeBits	Always 0, never used.
Parameter_35	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_36	ErrorWSBTimeValid	Delay time active.
Parameter_37	NumInterface	Number of the user IO interface used. 0: User-IO Interface of the internal IO-

Tag	Parameter	Explanation
		CPU 1: User-IO Interface of the external IO-CPU
Parameter_38	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_39	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_40	Repeating	Indicates how often the test step is carried out.
Parameter_41	StartButton	Indicates whether the Start button is displayed.
Parameter_42	PassButton	Indicates whether the Pass button is displayed.
Parameter_43	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_44	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_45	StartPETme_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_46	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_47	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.11 Resistance

Parameters of the **Resistance** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed

Tag	Parameter	Explanation
		together with the StartCondition field.
Parameter_2	t	Test time
Parameter_3	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_4	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_5	R_min	Lower threshold value of the resistance.
Parameter_6	R_max	Upper threshold value of the resistance.
Parameter_7	Polung	Contacting setting of an external relay matrix.
Parameter_8 bis Parameter_23	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_24	StateChangeBits	Always 0, never used.
Parameter_25	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_26	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_27	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_28	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_29	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_30	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_31	ErrorStateChangeBits	Always 0, never used.
Parameter_32	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_33	ErrorWSBTimeValid	Delay time active.
Parameter_34	R_offset	Resistance of the measurement structure.
Parameter_35	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition

Tag	Parameter	Explanation
		1 = Wait for switching condition
Parameter_36	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_37	Repeating	Indicates how often the test step is carried out.
Parameter_38	StartButton	Indicates whether the Start button is displayed.
Parameter_39	PassButton	Indicates whether the Pass button is displayed.
Parameter_40	t_timeout	Maximum time after starting until the first measurement value is recorded.
Parameter_41	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_42	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_43	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_44	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_45	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.12 Continuity test

Parameter of the **Continuity** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	TestVoltage	Maximum test voltage used for the measurement.
Parameter_3	TestTime	Time after that the measurement will be

Tag	Parameter	Explanation
		evaluated.
Parameter_4	MaxTestCurrent	Maximum current during the test.
Parameter_5	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_6	Limit	Limit for the evaluation.
Parameter_7	Interpretation	Evaluation of the measurement: 1: Pass on continuity 2: Pass on discontinuity
Parameter_8	TypeOfSource	Type of the used source: 0: Alternating current 1: direct current
Parameter_9	Polung	Contacting setting of an external relay matrix.
Parameter_10 bis Parameter_25	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_26	StateChangeBits	Always 0, never used.
Parameter_27	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_28	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_29	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_30	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_31	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_32	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_33	ErrorStateChangeBits	Always 0, never used.
Parameter_34	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_35	ErrorWSBTimeValid	Delay time active.
Parameter_36	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition

Tag	Parameter	Explanation
Parameter_37	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_38	Repeating	Indicates how often the test step is carried out.
Parameter_39	StartButton	Indicates whether the Start button is displayed.
Parameter_40	PassButton	Indicates whether the Pass button is displayed.
Parameter_41	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_42	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_43	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_44	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_45	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.13 PT 100

Parameters of the **PT 100** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	t	Test time
Parameter_3	t_start	Delay time for the start scenario when starting the test until starting the analysis. This value is not valid for all start scenarios.
Parameter_4	t_delay	Start delay between fulfilling the start condition and the start of the test.

Tag	Parameter	Explanation
Parameter_5	T_min	Lower threshold for the temperature.
Parameter_6	T_max	Upper threshold for the temperature.
Parameter_7	Polung	Contacting setting of an external relay matrix.
Parameter_8 bis Parameter_23	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_24	StateChangeBits	Always 0, never used.
Parameter_25	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_26	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_27	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_28	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_29	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_30	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_31	ErrorStateChangeBits	Always 0, never used.
Parameter_32	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_33	ErrorWSBTimeValid	Delay time active.
Parameter_34	R_offset	Resistance of the measurement structure.
Parameter_35	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_36	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_37	R0	Basic resistance of the measurement sensor.
Parameter_38	Repeating	Indicates how often the test step is carried out.

Tag	Parameter	Explanation
Parameter_39	StartButton	Indicates whether the Start button is displayed.
Parameter_40	PassButton	Indicates whether the Pass button is displayed.
Parameter_41	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_42	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_43	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_44	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_45	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.14 Light control

Parameters of the **Light control** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_3	StateChangeBits	Always 0, never used.
Parameter_4	Leuchte_ART	Type of the light
Parameter_5	Leuchte_Befehl	Command to the light
Parameter_6	Leuchte_DIM	Dim value
Parameter_7	Leuchte_DALIC	DALIC
Parameter_8	Leuchte_DALIV	DALIV
Parameter_9	Leuchte_DIMT	DIMT
Parameter_10	ErrorStartCondition	Condition for switching forward in the

Tag	Parameter	Explanation
	on	event of an error.
Parameter_11	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_12	ErrorStateChangeBits	Always 0, never used.
Parameter_13	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_14	ErrorWSBTimeValid	Delay time active.
Parameter_15	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_16	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_17	Repeating	Indicates how often the test step is carried out.
Parameter_18	StartButton	Indicates whether the Start button is displayed.
Parameter_19	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_20	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_21	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_22	StartKVTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_23	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.15 Dummy load

Parameters of the **Dummy load** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask

Tag	Parameter	Explanation
		field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	Management	Indicates how the supply of the test item is to be carried out. 0: Power off after test 1: Keep power on after test 2: Only power off 3: Power off only on error 4: Only power on
Parameter_3	U_Source	Source of the test supply.
Parameter_4	U	Voltage of the test item supply
Parameter_5	f	Frequency of the voltage
Parameter_6	Channels	Number of channels
Parameter_7	RGas	Gas resistance
Parameter_8	RCoil	Coil resistance
Parameter_9	Filament_enable	Active flame
Parameter_10	Filament_t	Active flame
Parameter_11	Filament_delay	Flame delay
Parameter_12	Filament_I	Current of the flame
Parameter_13	Ignition_enable	Ignition available
Parameter_14	Ignition_t	Ignition time
Parameter_15	Igniton_delay	Ignition delay
Parameter_16	Ignition_U	Ignition voltage
Parameter_17	Fct_Enable	Function available
Parameter_18	Fct_t	Duration of the function
Parameter_19	Fct_delay	Delay of the analysis
Parameter_20	Fct_Imin	Lower threshold value of the current
Parameter_21	Fct_Imax	Upper threshold value of the current
Parameter_22	t_timeout	Always 0
Parameter_23	Polung	Contacting setting of an external relay matrix.
Parameter_24 bis Parameter_39	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_40	StateChangeBits	Always 0, never used.

Tag	Parameter	Explanation
Parameter_41	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_42	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_43	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_44	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_45	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_46	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_47	ErrorStateChangeBits	Always 0, never used.
Parameter_48	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_49	ErrorWSBTimeValid	Delay time active.
Parameter_50	Filament_Imax	Max. current of the flame
Parameter_51	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_52	Repeating	Indicates how often the test step is carried out.
Parameter_53	StartButton	Indicates whether the Start button is displayed.
Parameter_54	PassButton	Indicates whether the Pass button is displayed.
Parameter_55	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_56	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_57	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_58	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_59	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.16 Light filament current

Parameters of the **Light filament current** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMask	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_2	Management	Indicates how to proceed after the test with supplying the test item. 0: Deactivate 1: Activate
Parameter_3	Filament_enable	Active flame
Parameter_4	Filament_t	Active flame
Parameter_5	Filament_delay	Flame delay
Parameter_6	Filament_I	Current of the flame
Parameter_7	Polung	Contacting setting of an external relay matrix.
Parameter_8 bis Parameter_23	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_24	StateChangeBits	Always 0, never used.
Parameter_25	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_26	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_27	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_28	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_29	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_30	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_31	ErrorStateChangeBits	Always 0, never used.

Tag	Parameter	Explanation
Parameter_32	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_33	ErrorWSBTimeValid	Delay time active.
Parameter_34	Filament_Imax	Max. current of the flame
Parameter_35	StartStateChange	Indicates whether the switching condition needs to be maintained when testing the start conditions. 0 = no waiting for switch condition 1 = Wait for switching condition
Parameter_36	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_37	Repeating	Indicates how often the test step is carried out.
Parameter_38	StartButton	Indicates whether the Start button is displayed.
Parameter_39	PassButton	Indicates whether the Pass button is displayed.
Parameter_40	StartandJump	Indicates whether the Start and Jump buttons are displayed.
Parameter_41	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_42	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_43	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_44	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.3.1.17 External program

Parameters of the **External program** test step.

Tag	Parameter	Explanation
Parameter_0	StartCondition	Start conditions of the test step. The start conditions are saved in a bit-coded manner and can only be analysed together with the StartConditionMask field.
Parameter_1	StartConditionMas	Start conditions of the test step. The

Tag	Parameter	Explanation
	k	start conditions are saved in a bit-coded manner and can only be analysed together with the StartCondition field.
Parameter_3	Polung	Contacting setting of an external relay matrix.
Parameter_4 bis Parameter_19	PolungCAN_00 bis PolungCan_15	Setting of the relay matrix in accordance with the choice in the program. The display is bit coded.
Parameter_20	StateChangeBits	Always 0, never used.
Parameter_21	Multitest_Enable	Multitest is active, if the value does not equal 0.
Parameter_22	Multitest_Auswertung	Method of analysing the multitest. 0 = worst measurement value.
Parameter_23	Multitest_Endekriterium	Method of ending the multitest. 0 = number of measurements 1 = pass key
Parameter_24	Multitest_Endekriterium_Anzahl	Number of multitest inspections.
Parameter_25	SettingsFlags	Settings
Parameter_26	t_delay	Start delay between fulfilling the start condition and the start of the test.
Parameter_27	ErrorStartCondition	Condition for switching forward in the event of an error.
Parameter_28	ErrorStartConditionMask	Mask for the condition for switching further in the event of an error.
Parameter_29	ErrorStateChangeBits	Always 0, never used.
Parameter_30	ErrorWSBDelay	Delay of switching further in the event of an error.
Parameter_31	ErrorWSBTimeValid	Delay time active.
Parameter_32	StartStateJump	Indicates whether the Jump button is displayed.
Parameter_33	Repeating	Indicates how often the test step is carried out.
Parameter_34	StartButton	Indicates whether the Start button is displayed.
Parameter_35	PassButton	Indicates whether the Pass button is displayed.
Parameter_36	StartandJump	Indicates whether the Start and Jump

Tag	Parameter	Explanation
		buttons are displayed.
Parameter_37	StartTime_Delay	Wait time for the signal Start-Button , in case the start condition is monitored .
Parameter_38	StartPETime_Delay	Wait time for the signal PE-Testprobe , in case the start condition is monitored .
Parameter_39	StartKUTime_Delay	Wait time for the signal Contact Monitoring , in case the start condition is monitored .
Parameter_40	StartSHKHVTime_Delay	Wait time for the signal Safety Circuit HV , in case the start condition is monitored .

6.4.4 Result

The data in this block can be found under **<ResultData>/<Result>**.

Tag	Explanation
Count_Tests	Number of tests that were carried out since starting the test plan.
Count_IO	Number of IO results of the test since starting the test plan.
Count_NIO	Number of NIO results of the test since starting the test plan.
Count_ERROR	Number of errors of the test since starting the test plan.
PlanCycleTime	Duration for carrying out the test. The value is always 0.
PlanStandbyTime	Duration between the end of the prior test and the start of the current test.
Result	Total result of the plan. Passed -> The test item has passed the test. Failed -> the test item has not passed the test or the test was cancelled.
Type	Type of the test item, is only filled in if the combibox is active.
UsedID	ID used to select the test plan, is only filled in when the ID-Pattern field is active.
SerialNumber	Serial number of the test item, is only filled in if the Serial-Pattern field is active.
Article	Article name, is only filled in if the Article-Pattern field is active.

6.4.5 PlanOptionen

The data in this block can be found under `<ResultData>/<PlanOptionen>`.

This block contains the subblock for the [ReportOptionen](#) and subsequent entries.

Tag	Explanation
<code>Start_Timeout</code>	If the vlaue is not 0 it will be checked that all other start conditions are meet after the start condition start signal is set.

6.4.5.1 ReportOptionen

The data in this block can be found under `<ResultData>/<PlanOptionen>/<ReportOptionen>`.

This block contains a list of the individual report options. Every report option is a [block](#) of its own.

6.4.5.1.1 ReportOption

The data in this block can be found under `<ResultData>/<PlanOptionen>/<ReportOptionen>/<ReportOption>`.

This block contains the subblock for the [output data](#) and subsequent entries.

Tag	Explanation
<code>PrintFlags</code>	Indicates for what overall result the report is to be created. The indication is bit-coded.

6.4.5.1.1.1 SpoolData

The data in this block can be found under `<ResultData>/<PlanOptionen>/<ReportOptionen>/<ReportOption>/<SpoolData>`.

Tag	Explanation
<code>Template</code>	File name of the template. If the file can be reached via a relative path from the folder of the plan files, the relative path is entered, otherwise the absolute path is entered.
<code>Output</code>	Indication where the report is to be sent. This indication is only filled in if the report is to be issued on a printer.
<code>ConversionType</code>	Indicates what report is to be created. <code>printer</code> -> printout on a printer using an HTML template <code>html</code> -> creation of an HTML file using an HTML template

Tag	Explanation
	<p>pdf -> creation of a PDF file using an HTML template</p> <p>xml -> creation of an XML file</p> <p>csv -> creation of a CSV file using a CSV template</p> <p>zebra -> printout on a zebra printer using a ZPL template</p>

6.4.6 Validation

The data in this block can be found under **<ResultData>/<Validation>**.

Tag	Explanation
Checksum	Not used, always 42.

6.5 Plan files

The plan files have the extension **.plan**. The place of saving and the file name result from the details in **Settings** -> **File storage** -> **Test plan**. This file has the format of an XML file with UTF-8 coding with BOM.

The plan files are largely identical to the result files. They differ by the encompassing **PlanData** tag instead of **ResultData**. Furthermore, the result fields in the individual test steps and the **Result** block do not apply.

6.6 Printserver configuration

This file has the name **PrintServer.conf** and resides in the working folder. This file must not be present and will not be created automatically.

In this file are settings which are used only by the printserver. These settings are for the storage of the report files, handling missing keywords and timeouts. It is possible to configure an alternative folder for each report type.

The file is in XML-format and the main tag is **Settings**.

Tag	Explanation
HTML	Alternative folder for the report type html .
PDF	Alternative folder for the report type pdf .
XML	Alternative folder for the report type xml .
CSV	Alternative folder for the report type csv .
Debug	<p>false: Will a keyword not be recognized no text be generated.</p> <p>true: Will a keyword not be recognized the keyword in parantheseis will be generated.</p> <p>Default setting is false.</p>

Tag	Explanation
PdfTimeout	Time within the PDF-document must be generated. The value is in milliseconds. Default is 6 seconds.
PrintTimeout	time within the printing on the printer must be completed. The value is in milliseconds. Default is 10 seconds.

6.7 Matrix

6.7.1 RelaisMatrix.cfg

This file will be used for all relais matrix types und describes which relais will be switched for the different outputs and wires. For the types 3 and 4 also the file for the [additional relais](#) is necessary.

Description: Relais Matrix, 8Channel, 1xRelais_Platine, 1xLT_CPU

MatrixTyp: 1

MatrixNum: 1

Channels: 2

Channel 1

A: 1, 2,

B: 1,

0:

Channel 2

A: 3, 4,

B: 3,

0:

Tag	Description
Description	Comment which will not be processed.
MatrixTyp	Determines the different modules. 1 : Matrix with max. 24 relais for each board 2 : Matrix with max. 8 relais for each board 3 : Matrix with max. 16 relais for each board 4 : Matrix with max. 32 relais for each board
MatrixNum	Number of boards in the matrix.
Channels	Number of channels in the matrix.

Between the header and the first channel resp. between the channels is a separator line. After the last channel the seperator line must be present.

Each channel consists of 4 Lines. There must be configured as much lines as set in [Channels](#).

Tag	Description
	Comment which will not be processed.
A:	These relais will be switched in the case wire HV1 will connected to the apropiate output.
B:	These relais will be switched in the case wire HV2 will connected to the apropiate output.
0:	These relais will be switched in the case none of the wires will be connected to an output.

6.7.2 ExtendedRelais.conf

This file is neccessary when a matrix of type **MatrixTyp** 3 or 4 will be used.

This file is in XML-Format. For each test type as much lines must be present as boards are used according to the value **MatrixNum** in the file [RelaisMatrix.cfg](#). The values in the tag **unsignedInt** have a range from 0 ... 3.

Value	Description
0	No additional relais switched.
1	Additional relais K1 switched.
2	Additional relais K2 switched.
3	Both additional relais switched.

```

<?xml version="1.0" encoding="utf-8"?>
<ExtendedRelais xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="ht
<!-- Für jede Prüfkart müssen so viele Zeilen vorhanden sein, wie Platinen verbaut s
    0 = Kein Relais geschaltet, 1 = K1 geschaltet, 2 = K2 geschaltet, 3 = beide ge
    <HV_AC>
        <unsignedInt>0</unsignedInt>
    </HV_AC>
    <HV_DC>
        <unsignedInt>0</unsignedInt>
    </HV_DC>
    <ISO>
        <unsignedInt>0</unsignedInt>
    </ISO>
    <PE>
        <unsignedInt>0</unsignedInt>
    </PE>
    <FCT_Current>
        <unsignedInt>0</unsignedInt>
    </FCT_Current>
    <Resistance>
        <unsignedInt>0</unsignedInt>
    </Resistance>
    <LeakageCurrent>
        <unsignedInt>0</unsignedInt>
    </LeakageCurrent>
    <DummyLoad>
        <unsignedInt>0</unsignedInt>
    </DummyLoad>
    <FCT_Extern>
        <unsignedInt>0</unsignedInt>
    </FCT_Extern>
    <Notlicht>
        <unsignedInt>0</unsignedInt>
    </Notlicht>
    <PT100>
        <unsignedInt>0</unsignedInt>
    </PT100>
    <Matrix>
        <unsignedInt>0</unsignedInt>
    </Matrix>
</ExtendedRelais>

```



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