SIEMENS

SINUMERIK, SIMATIC S7-300/400

ePS Network Services
Release Notes

Readme

Valid for software version:
  ePS Network Services Version 4.9.0

Valid for the following controllers:
  SINUMERIK 840D sl/840DE sl
  SINUMERIK 840Di sl/840DiE sl
  SINUMERIK 840D/840DE
  SINUMERIK 840Di/840DiE

04/2010

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ⚠ **DANGER**
>
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ⚠ **WARNING**
>
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ⚠ **CAUTION**
>
> with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.

> **CAUTION**
>
> without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.

> **NOTICE**
>
> indicates that an unintended result or situation can occur if the corresponding information is not taken into account.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation for the specific task, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

> ⚠ **WARNING**
>
> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be adhered to. The information in the relevant documentation must be observed.

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We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Table of contents

New functions in V4.9.0 $\qquad$ 1

1.1 Triggering on all variables

Overview

The function encompasses the variable trigger, the variable conditions and the extended combined trigger. In Version 4.4.3., the Client supports further data types in the trigger.

1.1.1 Variable trigger and variable condition

Variable sources

New trigger on variables from the following sources:

- PLC
- NC
- Predefined NC addresses
- ePS variables (stopwatch)
- Generic variables

Trigger conditions

The trigger takes the form of an edge trigger which is activated under the following conditions:

- Condition fulfilled for the first time ⇒ trigger is activated once.
- Condition no longer needs to be fulfilled until the trigger is activated again. If a hysteresis is specified, the variable does not need to fulfill the condition including the hysteresis.

Supported data types

Source	Number types	Text	Note
PLC	BYTE, WORD, DINT, REAL	no	Client up to V4.4.2
PLC	BYTE, CHAR, WORD, INT, DWORD, DINT, REAL	no	Client from V4.4.3
NC	float	yes	--
Predef. NC	float	no	Motor temperature only for Powerline-NC
Stopwatch	float	no	--

Source	Number types	Text	Note
Generic variables	BYTE, WORD, DINT, REAL	yes	Client up to V4.4.2
	BYTE, CHAR, WORD, INT, DWORD, DINT, REAL	yes	Client from V4.4.3

Supported operators

Data type	Operators
BOOL	= and ≠
All other figures	=, ≠, <, >, ≤, ≥, IN, OUT
Text	= and ≠

Special operators:

- IN(M,N) is equivalent to M ≤ X ≤ N
- OUT(M,N) is equivalent to X < M or X > N

Variable conditions

The conditions are effective for each controller monitor and can thus be combined with all trigger types at the (**Client end**). The conditions are checked in real time in comparison with the triggers (provided the job performance permits this within seconds).

Supported data types

Source	Number types	Text	Note
PLC	BYTE, CHAR, WORD, INT, DWORD, DINT, REAL	no	--
NC	float	yes	--
Predef. NC	float	no	--
SINAMICS Drive	float	no	--
Stopwatch	float	no	--
Generic variables	BYTE, CHAR, WORD, INT, DWORD, DINT, REAL	yes	--

Supported operators

Data type	Operators
BOOL	= and ≠
All other figures	=, ≠, <, >, ≤, ≥, IN, OUT
Text	=, ≠, starts, ends, contains, regmatch

Special operators:

- IN(M,N) is equivalent to M ≤ X ≤ N

- OUT(M,N) is equivalent to X < M or X > N

- Regmatch = Regular Expression

1.1.2   Extended combined trigger

Combined trigger

The combined trigger provides the option of triggering on the (definable) real-time occurrence of several events. The supported triggers are extended on virtually all triggers at the Client end:

Trigger type	Supported	Note
Alarm triggers	yes	
PLC triggers	yes	
PLC timeout triggers	yes	new
Variable triggers	yes	new
Synchronization	yes	new
Error in the controller monitor job	yes	new
Servicing at the HMI	no	not recommended
Time trigger at the Client end	yes	new, not at the Server end
Triggers on the stopwatch	yes	new
Triggers at the Server end	no	

OR/AND logic operation

Type	Logic operation	Implementation
Variable triggers	OR	Create several triggers in the controller monitor.
	AND	Create several triggers in the combined trigger.
Conditions	OR	Create several conditions in the controller monitor.
	AND	Create several conditions in one condition.

Copying variable triggers and variable conditions

The copying of controller monitors continues to be available. In addition to this, the following functions are supported for copying and pasting:

Source	Target	Insert as
Variable triggers from controller monitor view	Controller monitor view	Copy of the variable trigger is inserted.
	Detailed view of variable trigger	Source trigger condition replaces existing condition.
	Conditions → detailed view	Source trigger condition is added.
Variable condition from controller monitor view	Controller monitor view	Copy of the variable condition is inserted.
	Detailed view of variable trigger	1. Source condition replaces the existing condition.
	Conditions → detailed view	Conditions of the source condition are added.
Detailed view of condition from variable trigger or variable condition	Controller monitor view	Condition is added as a new variable condition.
	Detailed view of variable trigger	Condition replaces the existing condition.
	Conditions → detailed view	Condition is added.

1.2 Preparing files to be downloaded to the machine

1.2.1 Brief description

The "Prepare files to be downloaded to the machine" feature is hereinafter referred to as "Private Sync". This feature allows the customer to upload one or more files for a machine to the ePS Server via the PC-UI. The uploaded files are transported to the Client in parallel with the ePS synchronization.

1.2.2 Framework conditions

The following conditions must be met for PrivateSync to be performed:

- PrivateSync must be permitted on a general basis.
- The controller monitors must be activated globally.
- The machine must be connected.
- The machine must be online.

Otherwise, the files are not downloaded to the Client.

Configuration settings

Approval

For eP satellite systems, the system administrator can configure whether the file download needs to be approved or whether an automatic approval is performed.

The ePS - ASP system is configured in such a way that requires approval.

If the file download requires approval, the files are downloaded following approval at the HMI. If approval is not required, the files are downloaded following the next synchronization.

Executable files

For eP satellite systems, the system administrator can configure which files are to be regarded as executable. This is preconfigured in the case of the ePS - ASP system.

This is firstly as a result of entering a list of corresponding file endings and secondly by determining a starting sequence (the first 8 bytes of a file), which marks the files as executable.

Target folder on the Client

For eP satellite systems, the system administrator can configure the target folder into which the files are downloaded to the Client.

This is preconfigured in the case of the ePS - ASP system.

The folder must be created by the user and is not created when downloading the files. It is not possible to download the files to a different folder.

If a folder has not been configured, the files will be downloaded to the tmp folder.

Maximum file size

For eP satellite systems, the system administrator can also configure the maximum file upload size.

If no file upload size is defined, the default setting will be used.

This is preconfigured in the case of the ePS - ASP system.

Organizational settings

In the organizational data, two settings can be applied for PrivateSync. Firstly, the system administrator configures whether file downloads are permitted on a general basis and, secondly, whether downloading of executable files is permitted. The default setting for both options is "false".

Machine-related settings	
PLC performance identification number	50 [?] Default-Wert: 50
Block new configurations	☐ Switch all "online" machines to stand-by?
Common start date	☐ New triggers of new machines participate
E-mail notifications	☐ Please also send information about the company, location and production unit
Behavior on cloning	☐ Accept the global status of the control monitors during cloning [?]
Period prior to the due date of maintenance jobs	0 days [?]
Download files to the machine	☐ May download files to the client ☐ May download executable files to the client [?]

A help pop-up shows which file endings have been configured as executable.

	Download files to the machine	☑ May download files to the client ☑ May download executable

Executable file extensions [×]

All files with the extension exe, bat, cmd, reg and all files marked by their start sequence as executable files have been configured as executable files.

Cancel

Build 4.9.0.63
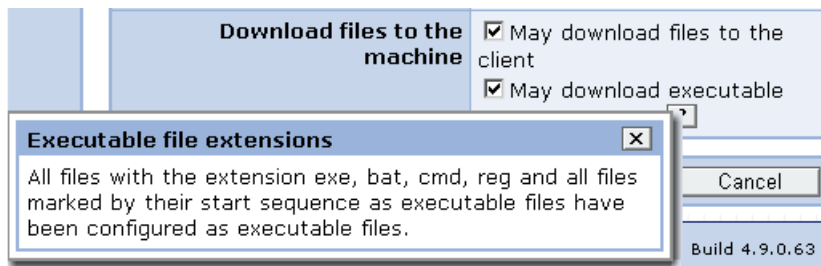
1.2.3   PC-UI

Standard procedure

PrivateSync can be called up at the PU-UI via "Set up functions" ->"Prepare files to be downloaded to the machine" and relates to the selected machine.

The "Browse" button can be used to select a file in the file dialog and "Upload" is used to upload to the ePS Server.
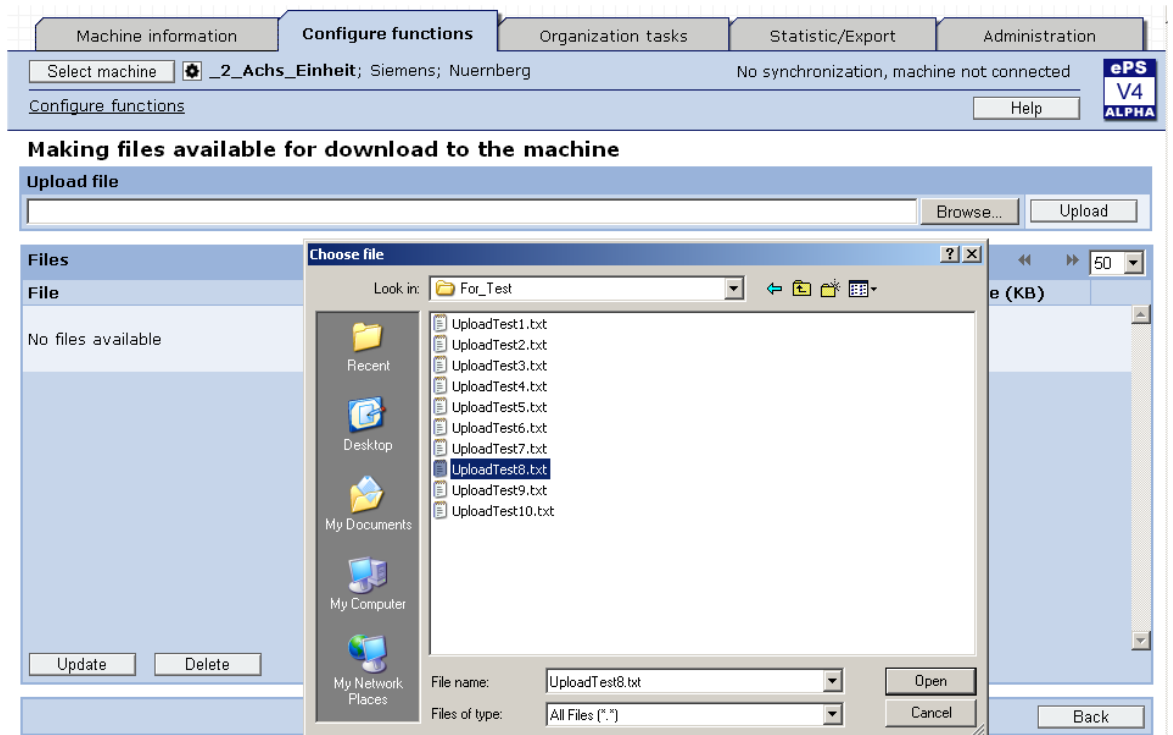
One or more files of any type can be uploaded.

The uploaded files are listed with their status and file size in the order in which they were uploaded.

Making files available for download to the machine

Upload file		
	Durchsuchen...	Upload

Files 1-3 of 3 uploaded to the server		‹‹ 1 ›› 50 ▾	
File	**Status**	**Size (KB)**	
doku 4_8 wz.doc	Download deactivated – is not being downloaded	23	✕
doku 4_8 wz29.doc	Download deactivated – is not being downloaded	23	✕
doku 4_9 wz.doc	Download deactivated – is not being downloaded	23	✕

Update	Delete

	Back
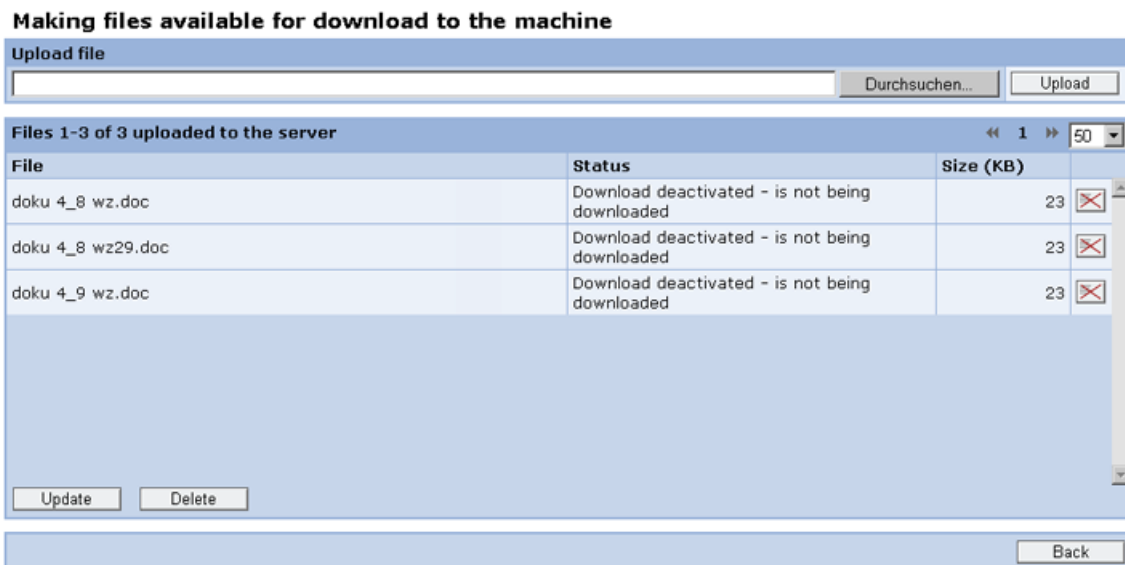
If an existing file is uploaded, this is overwritten and listed at the end of the file list.

Provided the file download has not started, it is possible for it to be deleted.

The "Delete" button can be used to delete the entire file list (excluding files which have just been downloaded). Individual files can be deleted by means of the respective Delete buttons.

Delete file ✕

Do you really want to delete the download job for file doku 4_9 wz.doc?

Delete	Cancel

Download deactivated – is not being downloaded   23 ✕
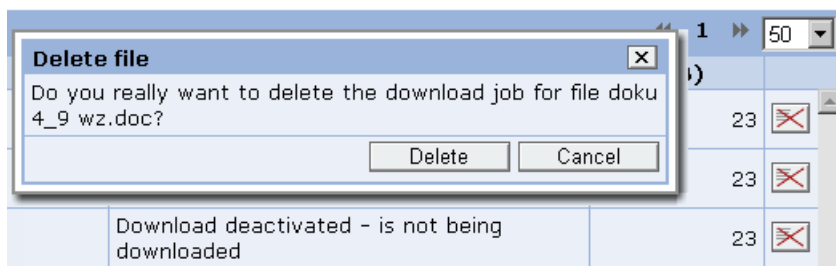
The "Update" button is used to update the display.

Special cases and error scenarios

For the files to be downloaded to the Client, PrivateSync must be permitted on a general basis and controller monitors must be activated globally. If this is not the case, the user will be informed by means of corresponding warning messages. In addition to this, the status of the files indicates that the files cannot be downloaded.

Making files available for download to the machine

Upload file

| | Durchsuchen... | Upload |

⚠ NOTICE! The control monitors have been deactivated globally. In order to be able to download the files to the machines, the files must be activated globally.

⚠ NOTICE! The option for downloading files to the client has been deactivated. Files, which have not been granted a permission yet, will not be downloaded.

ℹ Note: The option for downloading executable files to the client has been deactivated. Executable files, which have not been granted a permission yet, will not be downloaded.

Files 1-3 of 3 uploaded to the server   ◀ 1 ▶ 50 ▼

File	Status	Size (KB)	
doku 4_8 wz29.doc	Download deactivated – is not being downloaded	23	✖
doku 4_8 wz.doc	Download deactivated – is not being downloaded	23	✖
doku 4_9 wz.doc	Download deactivated – is not being downloaded	23	✖

Update   Delete

If downloading of executable files is not permitted, a note message is displayed. If an executable file is contained in the list of uploaded files, the status indicates that this file is not being downloaded.

Making files available for download to the machine

Upload file

| | Durchsuchen... | Upload |

⚠ NOTICE! The option for downloading files to the client has been deactivated. Files, which have not been granted a permission yet, will not be downloaded.

ℹ Note: The option for downloading executable files to the client has been deactivated. Executable files, which have not been granted a permission yet, will not be downloaded.

Files 1-4 of 4 uploaded to the server   ◀ 1 ▶ 50 ▼

File	Status	Size (KB)	
doku 4_8 wz29.doc	Download deactivated – is not being downloaded	23	✖
doku 4_8 wz.doc	Download deactivated – is not being downloaded	23	✖
doku 4_9 wz.doc	Download deactivated – is not being downloaded	23	✖
Localize.bat	Download deactivated – is not being downloaded	1	✖

Update   Delete

If a virus is detected in the file to be uploaded, the file is not uploaded to the ePS Server and the user is informed by means of an error message.

If the file to be uploaded exceeds the maximum permitted file size, the file is likewise not uploaded. The user is informed by means of a corresponding warning message.

1.2.4 HMI-UI

Standard procedure

The standard procedure is based on the fact that the files to be downloaded require approval.

If the files to be downloaded are available at the Client, an info message is displayed on the HMI start page.
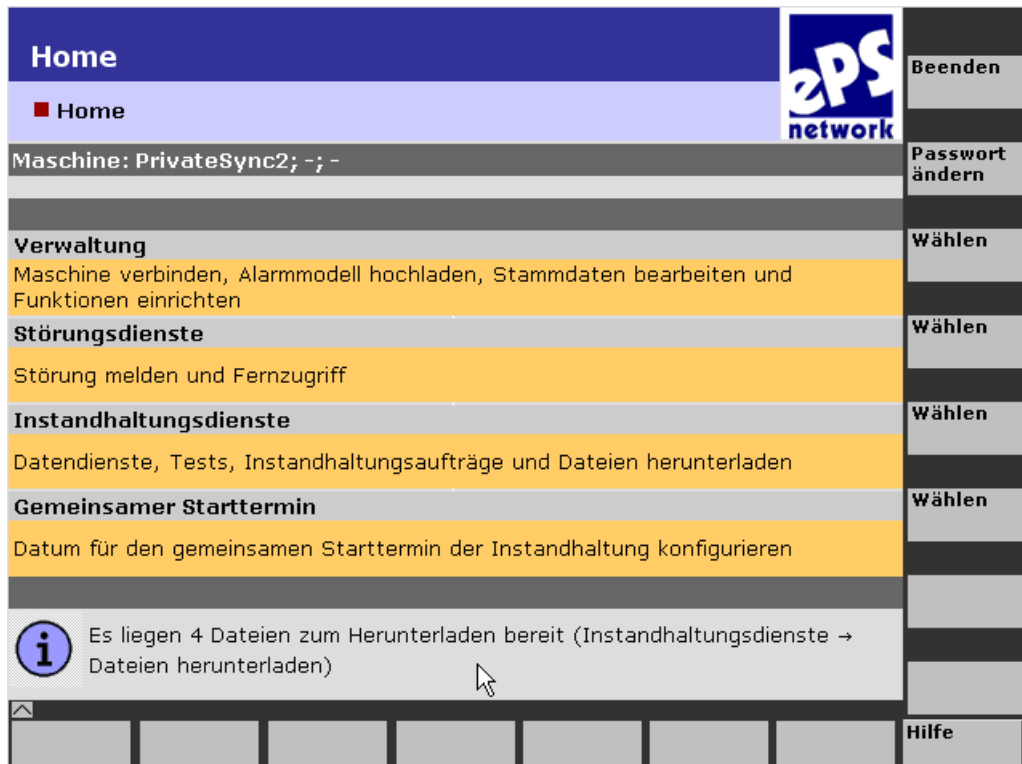
The menu command "Maintenance services" 蘆 "Download files" can be used to download files.
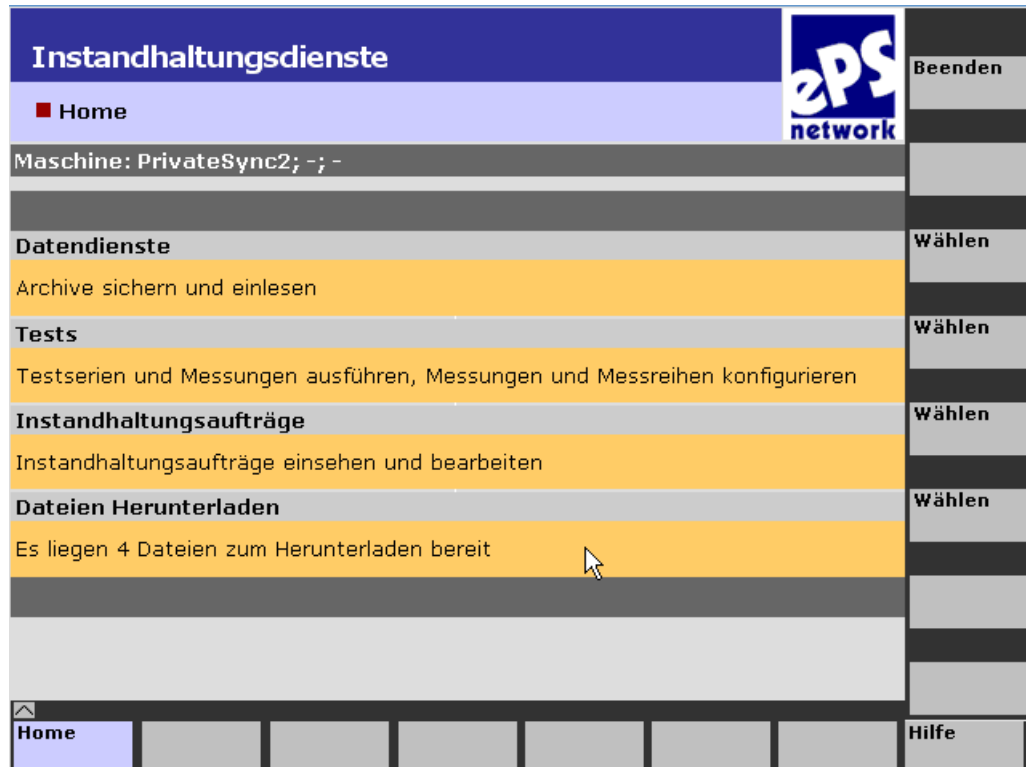
The files to be downloaded are displayed in the order in which they were uploaded.

If downloading of executable files is not permitted, these are also not displayed.

If the number of files exceeds the size of the page, then scrolling is possible.

To download the files to the Client, the files must be approved for download.

The approval relates to all files. Approval of individual files is not an option. Nor can files be deleted from the list.

By pressing the "Yes" softkey, all files are confirmed and the download to the Client is started.

If the files should not be approved for download, the approval is rejected by pressing the "No" softkey. The files are deleted on the ePS Server.

Following approval of the files at the HMI, these files are downloaded in the order in which they were uploaded.

When downloading files which are already available at the Client, these are overwritten. Existing files are not backed up.

Once the files have been successfully downloaded to the Client, the file on the Server is deleted.

An event entry is created for the downloaded files, in which the files are listed with their download status.

Following an unsuccessful download, the file remains on the Server and in the case of further download procedures, an attempt is made to download the file again until it is successfully downloaded or is deleted from the PC or file list by the user.

An event entry is generated for every non-downloaded file.

If the script does not report a download result for a file (e.g. due to communication failure, Client boot, etc.), no error information is included in the event entry.

In the next download, another attempt is made to download this file.

The status of the files can be tracked at the PC-UI.
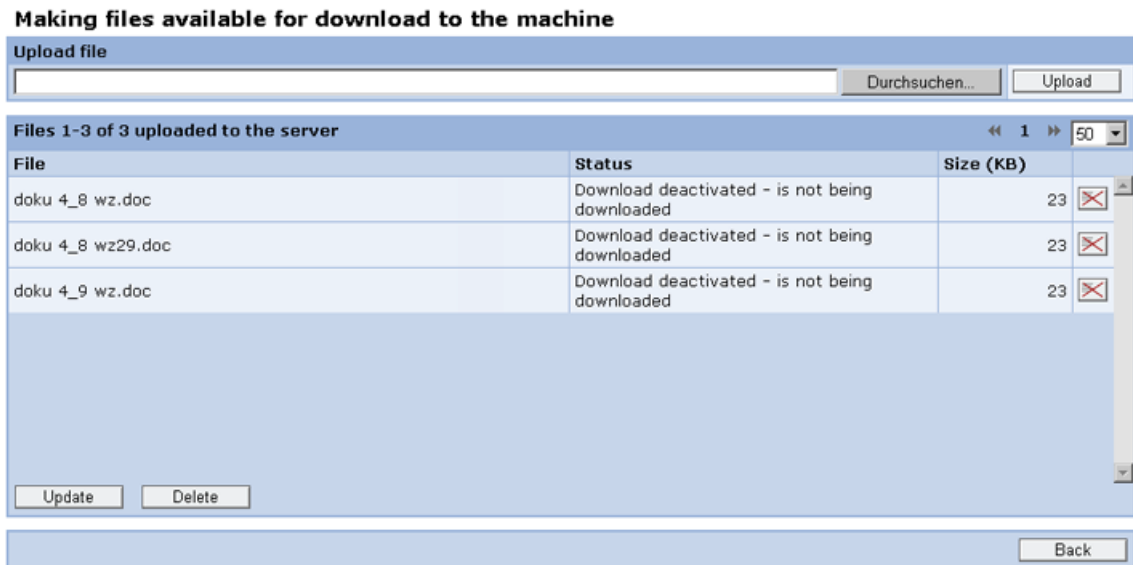
Special cases and error scenarios

If downloading of files is generally not permitted, the "Download files" menu command is deactivated. A note is also displayed.
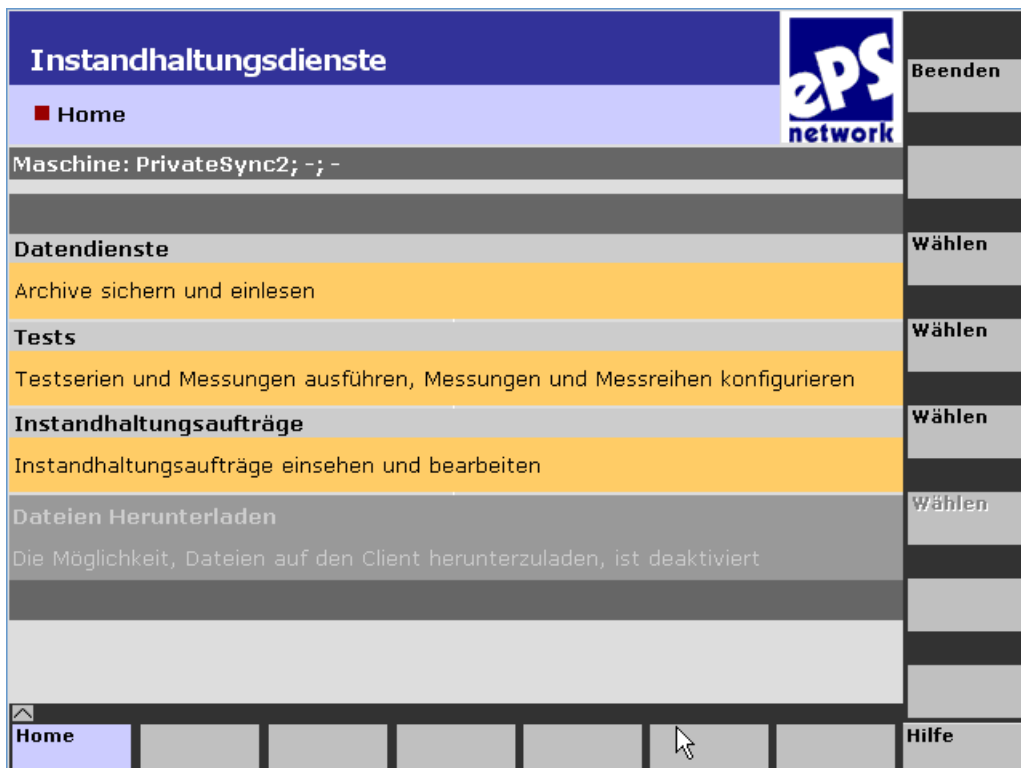
If a virus is detected when downloading a file, the file is not downloaded and is deleted on the Server. In the event, a note indicates that the file contains a virus.

If further files are approved for download, the approval is withdrawn for all files. In this case, the files are also not downloaded.

However, if the configuration specifies that files do not require approval, the files are nevertheless downloaded.

If the configured target folder is not available on the machine, the files cannot be downloaded. In the event, information appears which indicates that the folder does not exist.

If in the meantime a file to be downloaded has been deleted from the Server, this is listed in the event as "not downloaded", along with a note stating that the file no longer exists on the Server.

If a file to be downloaded is already available on the Client in read-only format, the file is not downloaded. A corresponding note appears in the event.

If a previously approved file is uploaded to the Server again, this is replaced and must be approved afresh. In the event, the file appears as "Not downloaded" with the status "Approval missing".

1.2.5   Script

The accepted files are automatically saved to the Client.

For each individual file, the script reports to the Server whether the download was successful.

A file which is successfully downloaded to the Client is deleted on the ePS Server.

1.2.6   Event history

Event for downloaded files

All the downloaded files are displayed here with their respective download time, file name and status.

[Ereignis]

[Zum Client heruntergeladene Dateien 1-4 von 4]		◀◀ 1 ▶▶ 100 ▼
[Datum]	**[Datei]**	**[Status]**
2009/03/13; 08:49:38.000	UploadTest10.txt	[Heruntergeladen]
2009/03/13; 08:49:38.000	UploadTest7.txt	[Heruntergeladen]
2009/03/13; 08:49:39.000	UploadTest8.txt	[Heruntergeladen]
2009/03/13; 08:49:39.000	UploadTest9.txt	[Heruntergeladen]

Event for unsuccessfully downloaded files

For each file which could not be downloaded, an event is created which displays the date/time of the download attempt, the file name and status.

[Ereignis]

[Herunterladen von Dateien fehlgeschlagen]	
[Datum]	2009/03/12; 05:33:00.000 nm
[Datei]	*.*
[Status]	[Die Datei konnte nicht heruntergeladen werden] – [Das konfigurierte Verzeichnis existiert nicht]

1.2.7 Cross-functional functions

Copying function settings

The list of uploaded files can be copied at the PC-UI to one or more machines.

1.3 "Text" data type in the variable monitor

The "Text" type is supported for NC and generic variables in the variable monitor. Text data can be logged, but cannot be displayed. However, in future it will be available for external evaluation e.g. via a web service.

1.4 Duplicating configurations (Copy&Paste, clipboard)

Duplication of controller monitor components (triggers, etc.), complete controller monitors and variable monitors on one machine or on different machines.

Several configurations can be copied to the clipboard and selected from there for pasting.

1.5 Synchronization triggers

Setting options:

- **Trigger delayed by x sec.**:
  The trigger is only activated after x sec. following a synchronization.

- **Minimum interval between triggers**:
  In order to avoid too frequent triggering e.g. in the case of synchronization every minute or manual synchronization, a minimum time between 2 activations can be defined, e.g. only once per hour.

1.6 Trigger on errors in the execution of controller monitor jobs (diagnostics function)

A trigger is activated in the case of log messages for controller monitor jobs. The log level can be selected. As such, it is possible to detect defective PLC block configurations of the PLC triggers/trace jobs.

Changes to system behavior in V4.9.0

<div style="text-align: right; font-size: 2em;">2</div>

Changed system behavior V04.08.01.00 SL05

Describes the changes made to system behavior compared with the latest released version V04.07.00.00.

2.1 Automatic determination of the data type based on the PLC address with additional name generation.

This procedure has been automated to avoid the time-consuming entry of the data type of a PLC address.

This is the reason why changes have been made to entering the address of the system, which in the case of a specified PLC address automatically determines the associated data type. In this case, the following default data types apply:

- Byte address -> byte
- Word address -> word
- DWord address -> DWord
- Bool address-> bool

The selection element for selecting the data type has been extended by an empty entry, which functions as a default entry when entering into the corresponding page.

For the definition of a PLC variable, the user only needs to specify its address, not the data type itself. This is set in accordance with the above-mentioned diagram.

If the user wishes to select a data type that deviates from the default value, which also corresponds to the specified PLC address (e.g. char for byte addresses), this selection can be made using the usual selection elements.

Incorrect entries are now corrected by the system by means of automatic selection of the default data type. In this case, a note is not output for the user.

This change takes effect on the following configuration pages:

- Variable triggers
- Controller monitor – conditions
- PLC triggers
- PLC timeout triggers
- Eps variable stopwatch
- Variable monitor - variable configuration

In addition to the automatic data type determination and method of functioning in which the user is no longer made aware of an incorrect entry of the data type, a name is now automatically generated for each save procedure.

This only relates to the name which was automatically generated when creating the trigger/condition. Names which were independently assigned by the user are not affected by this automation feature.

The following components are assigned automatically generated names:

- Variable triggers
- Controller monitor – conditions
- PLC triggers

In this case, the name is generated in the following format:

Address [data type] (operator) value

In the case of controller monitor conditions, the name is generated as follows:

Output address [data type]

(operator)

Comparison address [data type]

2.2 Deletion of all filtered events

Including deletion of events which are actually marked as undeletable. To delete undeletable events, the user must have both an Admin and a commissioning user account.

2.3   Optimizations from the performance lab

Various changes have been made to this version, which resulted from the performance lab in November 2008.

Condition monitoring – variable monitor

The deletion of a value only initiates a recalculation of the compensation if this is deemed absolutely necessary

Machine selection

Performance enhancements

Job handling

Performance enhancements

Caching of the machine authorization

The authorization level of the machine user is now cached; this is retrieved from the database each time the machine is called up.

Known restrictions

3

3.1 cqV100013253 - V4.7 - PC - Select machine - Machine selection window is opened several times

This problem has been defused, but has not been fully eradicated. We presume that it is not actually possible to fully avoid this problem.

New errors in V4.9.0 4

4.1 Modulo rotary axes can only be traversed in the modulo area (cqV100007652)

Description of errors

Modulo rotary axes can only be traversed in the range of 0° to 359.99°.

Resolution

There is currently a restriction in place which means that useful test results can only be utilized if the measurement remains within the range of 0° to 359°.

Common errors   5

5.1 UAT with circular axes does not work with SINUMERIK 840D sl (CQ13505)

Description of errors

UAT with circular and auxiliary axes is not possible with the following NCK versions due to an error in the NCK:

- 67.09
- 72.01
- 73.00

Resolution

Implementation of a different NCK version.

5.2 Entered limit values of a variable monitor cannot be deleted (CQ12742)

Error description

A variable monitor has been saved with limit values. The limit values are deleted and, at the same time, the limit is inactived. If you now save and open the variable monitor, the limit values are still available.

Remedy

Delete the limit values and save the variable monitor, and only then switch the variable monitor inactive.

5.3 In the equability test, the display of the P/I component is 0 (CQ12501)

Error description

If an equability test is carried out on a SINUMERIK 840D sl control, 0 is displayed for the supplementary conditions of Gain P component and Gain I component, although entries have been made at the control.

This occurs only if HMI Advanced and an ePS Client powerline are used.

If HMI sl and ePS Client solution line are used, the parameters are read out correctly.

Remedy

Use ePS Client powerline version V04.03.03 and higher.

5.4 During a dump, the machine remains in the status "Transfer is active" (CQ12426)

Error description

Sporadically, the transfer remains in the status "Transfer is active".

The problem occurs primarily during a transfer from a very slow eP satellite to the ePS server.

Remedy

Repeat the transfer.

5.5 Manual import of offline data (CQ11764) not possible.

Error description

The manual import of offline data does not work if more than one archive file was generated.

Remedy

Use the function "Import directory" under "Statistics / export" for more files.

5.6 Error message "Recorder parameter error" when executing a measurement (CQ10303)

Error description

A message is cancelled with the error message "Recorder parameter error" when no axis is defined for index 0 of the axis assignment of the measured channel.

Remedy

Do not configure a leading axis gap (index 0) in a channel.

5.7 Diagnostics actions are not executed (CQ10275)

Error description

If a control monitor is configured with at least one mailing action by email, and the option "Generate incident input" has been switched off, only actions of the type "PLC monitor" are executed as a diagnostics action when a trigger occurs.

All other actions such as notifications by email / SMS, uploading of files (NC, HMI action logs, PLC moduls, PLC Trace...) are not executed.

Remedy

Switch on option "Generate incident":

All configured actions will then be executed correctly, but an incident input will be generated in the incident history when a control monitor occurs.

5.8 Error after closing a teleservice session with Internet Explorer V7 (CQ9999)

Error description

When a teleservice session is set up with Internet Explorer 7 and then closed to return to the ePS page, the browser is closed with an error message.

Remedy

--

5.9 Channel switchover no longer works in 1:N operation when ePS is installed (CQ8149)

Error description

The channel switchover function of HMI Advanced no longer works if the entry MMC_TYPE = 0x20 is set in the NETNAMES.INI on machines in a 1:N / M:N network and the ePS Network Services are installed. It is not possible to operate the ePS Network Services either.

Remedy

The entry in the NETNAMES.INI must be changed to MMC_TYPE = 0x40.

5.10 Measurement does not start in ShopMill/ShopTurn Version 6 (CQ7777)

Error description

On a machine with ShopMill/ShopTurn installed, an active measurement (EAT, CT, UAT) stops before the "Please press NC Start" box is displayed. The ShopMill/ShopTurn machine does not switch to "Auto" mode, but the measurement sequence requires the machine to switch over. The measurement sequence is therefore interrupted at this point.

Remedy

A file "eps.ini" with the following entries can be created:

```
[NCStart]
PossibleWithJog = 1
```

The file must be saved in one of the following directories: \add_on, \oem oder \user.

5.11 A V3 machine in a V4 organization cannot be reconnected (CQ7408)

Error description

If the connection of a V3 machine in a V4 organization is canceled indirectly, e.g. as a result of reinstallation of the ePS client, it is not possible to reconnect this machine with the previously registered V3 database machine.

The control displays only unconnected machines for selection as machines to connect. However, in this instance, the V3 machine is still registered in the database as connected. It is not possible to disconnect the machine on the service PC as this does not support disconnection of V3 machines.

Remedy

> Create a new, temporary V3 machine on the PC and connect it to the control. The V3 interface is now displayed on the control and the previous V3 machine can now be re-registered.
>
> The temporary V3 machine can be deleted again on the service PC afterwards.

5.12   It is not possible to edit the epilog/prolog with the UP and DOWN cursor keys on the operator panel (CQ6397)

Error description

> The UP and DOWN cursor keys cannot be used to navigate around the epilog/prolog when this is being edited on the operator panel.

Remedy

> Navigate using key combination <CTRL> + cursor key UP or DOWN.

5.13   Chinese Tooltips are not displayed correctly (CQ5362)

Error description

> Tooltips are not correctly displayed in the Chinese language. Squares appear in place of the Chinese characters.

Remedy

> Install the Chinese version of Windows on the PC, or install the Windows XP MUI Service Pack for Chinese Simplified.

5.14   Incorrect results for UAT with modulo rotary axes (CQ5125)

Error description

> When a universal axis test is performed with a modulo rotary axis and the start position is too close to 360 degrees (e.g. the movements exceed the 360-degree threshold in each case), the UAT characteristic value calculations are incorrect. The coherence is very low in this case.

Remedy

> –

5.15   No focus on IAC on the HMI following a measurement (CQ5029)

Error description

On completion of a measurement, it is sometimes impossible to make inputs on the HMI (e.g. change status). This error occurs sporadically and is caused by the IAC losing the focus.

Remedy

Change to the "Machine" main screen and back to ePS again. The ePS can then again be operated with the softkeys.

5.16   Error message "You have not activated any cookies" (CQ4868)

Error description

If the setting for "Check for newer versions of stored pages" in the Internet Explorer is set to "Never", the error message "You have not activated any cookies" appears when you call the ePS Network Services.

Remedy

Change the Internet Explorer setting from "Never" to "Automatically":

"Tools" → "Internet Options" → "Temporary Internet Files" → "Settings" → "Check for Newer Versions of Stored Pages".

5.17   UAT cannot be performed for simulated axes (CQ4653)

Error description

The universal axis test (UAT) with simulated axes is terminated with the error message "Unable to evaluate data". The test is not stored.

Remedy

–

5.18 Automatic installation via D:\Install does not work (CQ4566)

Error description

The option of installing the ePS Network Services automatically by copying the setup.exe to D:\Install on a PCU does not work. The installation is aborted with the following error message as the PCU boots:

To correct or avoid errors

If Internet Explorer 5.5 is already installed on the PCU, the error does not occur and the ePS Network Services are installed correctly.

5.19 TRANSLINE interface fails to start on an S7 control (CQ4541)

Error description

The TRANSLINE interface fails to start after the ePS Network Services have been installed on an S7 with TRANSLINE interface. This error occurs only if the ePS Network Services have been installed with option SINUMERIK 840D (default) instead of option S7 on an S7 controller.

Remedy

Install the ePS Network Services again and select the correct option.

5.20 System information is not displayed (CQ4325)

Error description

No system information is displayed for an S7 controller with HMI Base.

Remedy

System information can be displayed only for S7 controllers with HMI Advanced.

5.21   Test SMS is sent more than once (CQ2667)

Error description

If a test SMS is sent when an entry is set up or edited in the address book, and the page is then refreshed (key <F5> or "Refresh"), then the page is loaded again and another test SMS is sent.

Remedy

–

5.22   Exporting a PLC data block does not work (CQ2458)

Error description

When a PLC data block is exported, the Download dialog does not appear, but the content of the file is displayed in the browser window instead. The error occurs if the file contains only valid ASCII characters.

Remedy

Select "File" → "Save As..." and store the displayed file as a *.bin file on your PC. You must then click the "Back" button in the browser to return to the ePS Network Services.

5.23   Error message after registration of a machine is aborted (CQ1767)

Error description

If a machine registration process has been aborted, the error message "Inform failed" might be displayed in a dialog in a variety of situations when the machine is being operated.

Remedy

Please register the machine again.

Eliminated errors in V4.9.0

6

6.1 PLC-aided maintenance jobs are not executed (cqV100013749)

Description of errors

A maintenance schedule is created and terminated by means of a controller monitor. The maintenance schedule contains a PLC-aided test series.

The controller monitor is triggered, however, the maintenance job is not executed in PLC-aided mode. The error can be generated if the test series was not yet executed by the time a maintenance schedule was created. Although the maintenance job was processed several times in manual mode it was never executed in PLC-aided mode.

Resolution

Save the maintenance schedule once again and wait for automatic synchronization.

6.2 Signals of the Start/Stop triggers are lost (CQ13644)

Description of errors

It is now possible to define ePS variables for measuring the interval between two PLC-triggers. Due to the design of the PLC triggers that are used for time measurements it is necessary to observe the general conditions and restrictions which apply to the functionality of the Start and Stop triggers:

Note

1. A PLC trigger is reported to the machine handler via DDE interface of the SINUMERIK HMI by way of the trigger function. On the route from the PLC to the ePS client it can happen that the first of two successive trigger events generated at short intervals is not actually transferred as the first trigger to the ePS client. Those shoot-ahead operations are favored by load on the BDE interface and by successive PLC trigger events being generated at very short intervals (only a few PLC cycles). "Solution line" controllers are more susceptible to those effects than "powerline" PLCs.

   During test on a "powerline" controller with low load and 50 ms trigger interval between Start and Stop, the effect could not be reproduced without generating high load by simultaneous loading of PLC blocks, PLC Traces, etc. Starting at intervals of 200 ms, the effect could not be reproduced even at high load. A test on HMI Embedded disclosed the effect at 50 ms trigger intervals even without additional load.

2. The system rejects any PLC triggers as long as the configuration of the PLC block is being updated in the course of synchronization. That is, the system discards all active measurements with Start/Stop triggers while the PLC block configuration is being updated. An update during synchronization is only initiated if the PLC trigger configurations, the PLC conditions of alarm triggers, or the combination triggers have changed since the last synchronization.

Resolution

None.

6.3 Copied PLC Trace cannot be changed (CQ11978)

Error description

With a copied control monitor with diagnostics action PLC Trace, the recording time is to be changed. This leads to the error message "The two raw values of the scaling must not be equal". The diagnostics action can neither be changed nor saved.

Remedy

Input a valid scaling (e.g. 0=0; 1=1) and then save.

6.4 Proxy authentification not possible in 1:N operation (CQ9177)

Error description

If a proxy with authentication is used, a 'BootScript not available' alarm is displayed on all active NCUs in 1:N operation, because the ePS client cannot authenticate to the proxy. The user name and password for authentication which are assigned via the ePS client setup routine are not stored at the correct location for the individual NCUs.

Workaround:

Open the following key in the registry (regedit):

```
HKEY_LOCAL_MACHINE\SOFTWARE\ePS Network - electronic Production
Services GmbH\ePS Network - Services V4.2.0\Configuration\MH
```

Copy the "alice" and "bob" entries to the appropriate MH directory of the relevant NCU. The subdirectories are named according to the names of the NCUs.

Remedy

Use ePS Client powerline V04.04.03.00 and higher.

6.5 Connection setup to the machine crashes (CQ7047)

Error description

On a machine with several NCUs, the setup of a connection to the machine stops without an error message if not all the connected NCUs are active.

Remedy

If an inactive NCU has been selected by HMI Advanced for ePS Network Services, then a message will be output that the machine cannot be connected.

History of functions up to V4.7 **7**

7.1 V04.07.00.00

7.1.1 New functions in V4.7 (overview)

Overview

New functions in V04.07.00.00:

- New machine selection:
  - Creation of organizations with more than 1000 machines
  - Streamlining machine selection and making it operable
  - Additional filter criteria in the machine tree
  - Streamlining of the selection of machines in "Multiple machines views"
- Representation of all software versions in "Current control software"
- Conversion of previous NC monitors to variable monitors
- Extension of the variable monitor with external data sources
- Start trigger, Stop trigger (timer)
- Feedback to the PLC for SIMATIC
- 1:N for PLC variables and generic variables
- Quantitative evaluation of event history with reference to multiple machines
- Copying configuration changes to multiple machines
- Improved representation:
  - Options for single measurements of the equability test
  - Enabling manually variable scaling of time series
  - Representation of time series: Printing diagrams
  - Representation of time series: Manual changes to the arrangement of diagrams

7.1.2 Functions (listing)

New selection of single machines
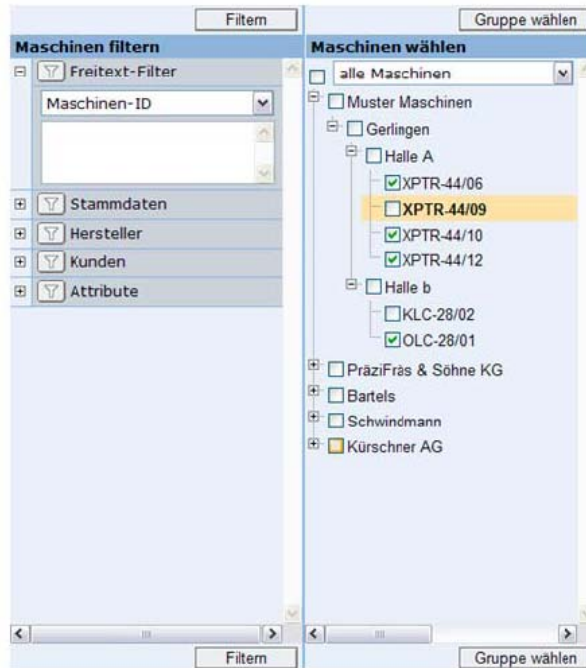
Figure 7-1   Pop-up window

Machines are now selected in a pop-up window.

- Significant increase of performance for organizations with a large number of machines.

- The display of the machine data automatically selects the relevant machine. The relevant machine is selected automatically whenever its master data is being edited in management, for example.

- The selection of a different machine within a dialog (for example configuration of the controller monitors) no longer triggers a reset of the menu structure. Instead, the start page of the corresponding dialog workflow is displayed for the new machine you selected. This functionality facilitates the quick comparison of the controller monitors of different machines, for example.

   This behavior is not supported for changes from/to V3 machines.

New selection of a group of machines

The pop-up window of the machine selection allows you to select any group of machines. This selection is consistently active in all multiple machine views and is saved for the specific user.

New machines are not added automatically to a group regardless of whether or not these meet previously applied selection criteria. That is, once a group has been selected it is retained consistently until deliberately changed by the user.

Configurable column in machine management

Figure 7-2   List of machines

One column of machine management is configurable to meet spatial requirements, meaning that users can select different machine information to be displayed in this column.

Display of the full version information

The display outputs additional information pertaining to installed components:

Figure 7-3   Version information

NC monitors are converted to variable monitors

Business.Converter converts NC monitors to variable monitors in the course of the update. The values of the NC monitor that are visible after conversion correspond with the previous representation, including all restrictions.

Generic data sources in the variable monitor

The variable monitor now supports external data sources that are interconnected with the client by means of adapters. For addressing, users must first specify the adapter in accordance with the adapter configuration on the client and then define the variable address to be called via the adapter. The complete address is specified in text string format within the variable monitor configuration.

Revision of the configuration of PLC triggers: Start trigger, Stop trigger

The user interface for configuring PLC triggers was modified in the course of the revision of Start/Stop triggers.

New "ePS variables" function:

- Variable type: "PLC timer" (on client side)
- Any number of timers per machine
- Timer properties (closely similar to the timeout trigger)
- Designation: Specifies the name of the ePS variable to which the measured times are saved:
  - Start trigger
  - Stop trigger

ePS variables can be referenced in variable monitors: "Trigger on new value of an ePS variable" → Properties

Manual changes to the arrangement of diagrams

Users are now provided new buttons which can be used to move the containers in the user interface. A container can be moved in four ways. Move one position up/down, move to the top, move to the bottom. Any buttons which are not useful for the current position are disabled.
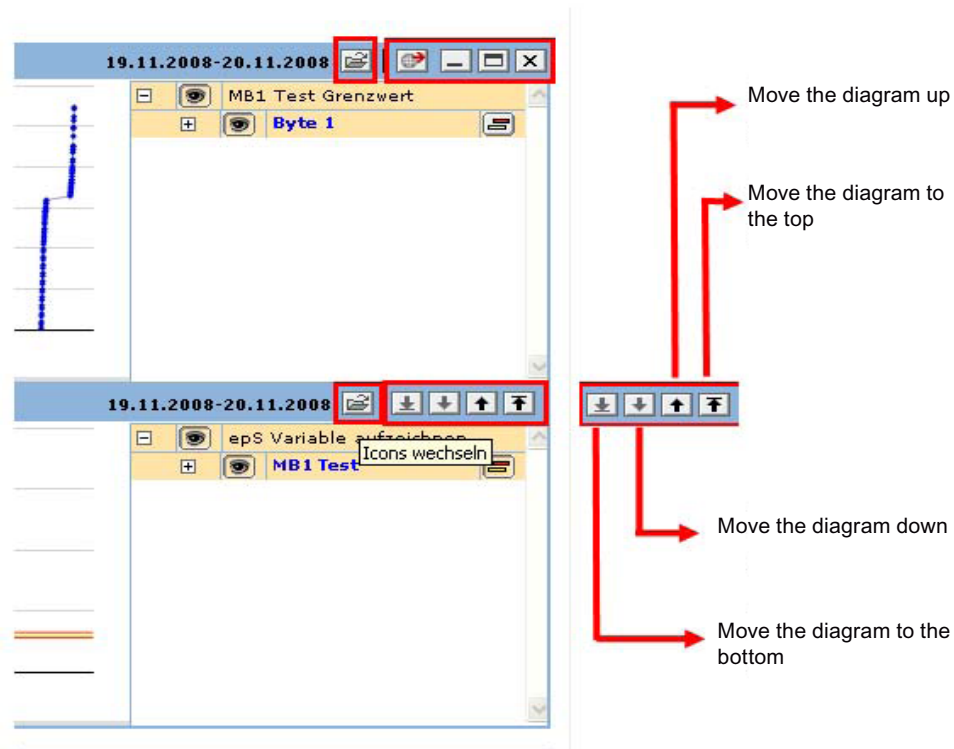

Figure 7-4   Output of diagrams

cqDat00000263 - Quantitative evaluation of event history with reference to multiple machines

Number of events generated within an organization and within a selectable period, optionally added up by machine or by the name of the controller monitor.

cqDat00000278 - Feedback to the PLC for SIMATIC plants

The existing "Feedback to PLC" functionality was enhanced with options of freely selecting the data block and the start / end addresses. The length of the data block is limited to 8 bytes.

On the machine, the data block must be assigned the "ePS[" identifier before the user area, and the "]ePS" identifier after the user area. This is a simple safety function that prevents unwanted overwriting on the PLC as a result of a configuration error at the server.
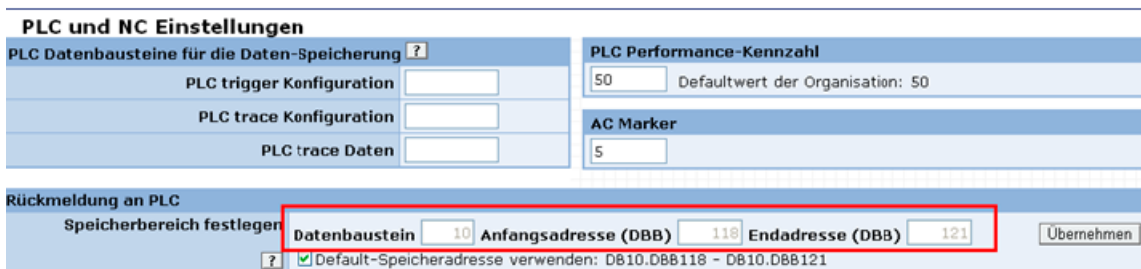
Figure 7-5   PLC settings

cqDat…358 - Visualization for single equability test measurements (position difference MMS-DMS (X), raw value of the force profile of linear motors)

The position difference is now displayed for equability test measurements, provided the axis is equipped with two measuring systems (additional selection item in the drop-down list). New measurements automatically include this value. A BusinessConverter session must be performed for old measurements to enable the display of the position difference.

cqDat00000394 - 1:N for PLC and generic variables (only for variable monitors)

Enhancement of the PLC address syntax that also allows addressing of 1:N plants. The addressing methods currently supported are listed in the development job.

cqDat…413 - Enabling manually variable scaling of time series

Users can manually scale all time series containers using the "Actions scaling" function. It is possible to select the automatic or manual mode. For manual scaling, users must define the middle value and the range of values (e.g. middle 3, range of values 1 displays the range from 2 to 4).
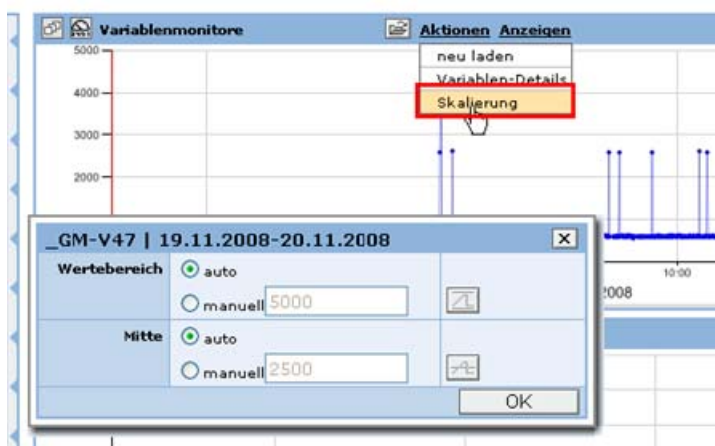

Figure 7-6   Scaling

cqDat…427 - Printing diagrams

Time series diagrams can now be printed using the internal print function of Internet Explorer. As there is no link in the user interface as for PLC trace, users can select the print or print preview functions from the toolbar. This change included the implementation of an additional general print layout for all other pages. Users can now print every page using the functions described above and exclude useless page objects (e.. the "machine selection" button) from being printed.

cqDat00000429 - Copying configuration changes to multiple target machines

It is now possible to simultaneously copy user configurations to several target machines. The target group of machines is selected using the new machine selection function.

The controller monitor configuration remains active when you copy controller monitors

In this version, the behavior for copying and cloning machine/controller monitors can be controlled by means of a central organization switch.

The global controller monitor configuration was previously always disabled for safety reasons. The following behavior is now supported:

Preset at organization level:	
OFF	ON

Configuration of the controller monitors:	
• After cloning of a machine:	
OFF	The settings of the source machine are activated.
• After a controller monitor was copied:	
OFF	The settings of the target machine are retained.

7.2 V04.06.00.00

7.2.1 New functions in version 4.6

Overview

New functions in V04.06.00.00:

- PLC timeout trigger
- Revised time triggers for maintenance schedules/jobs
- Expansion of e-mail notification by company, location and production unit
- Variable monitors
- Equability test expansion: Linear trend parameter with limit values
- Equability test limit values for vertical axes separately for each direction of motion
- Run contour test in single block
- Export of axis test data, measurement series, monitors for graphic processing
- Prolog program causes the pending measurement series to be skipped

7.2.2 Timeout trigger (FEAT 244.1.14.10)

Status

The user of ePS Network Services can trigger on all signals of the control, that change a signal state or have a defined state.

Problem

There are signals in mechanical engineering, that have and must have regular status changes in definable cycles. Currently, ePS Network Services cannot be used to monitor these signals in order to trigger a specific action within a freely definable time in case one of these signals is not output.

The user should not be supposed to program a logic in the control to convert regular clock signals into such trigger signals, since remote setting of this feature would not be easy.

A motion that is recognized as started via the falling edge of a limit switch and a rising edge of another limit switch has a timeout that has to be monitored and recognized without intervention in the PLC.

A motion that is recognized cyclically with an edge of a limit switch has a timeout that has to be recognized without intervention in the PLC.

Requirement

A trigger for regular clock edges of identical and different PLC signals, that can be used to configure a time interval for the defined edges of the signals, is required.

Approach

A trigger is configured that defines two control variables in bool or byte, word. A boolean bit is evaluated for a 0-1 and 1-0 edge change, a byte and word is evaluated for a change of its value to restart the time interval between the two signals that can be configured in the trigger. The trigger trips when the time interval, that has a configurable length, times out.

Trigger			
	Name		

Details			
	Trigger	Name	Condition
📂	Start	Start-Trigger	–
📂	Stop	Stop-Trigger	–

Monitoring time 10 seconds ▼ *

seconds
Minutes
hours
days
weeks

7.2.3 Time trigger for maintenance jobs (FEAT 244.6.1.3)

Status

The user of ePS Network Services can carry out maintenance plannings via the maintenance plan and via control monitors.

Maintenance planning via the maintenance plan itself is possible only via time control and cannot be completed with all available actions.

Maintenance planning can be controlled via control monitors. Although actions for linking are available, the time control is limited.

Problem

The user of the maintenance planning cannot map the maintenance and service specified for a machine completely in ePS Network Services. He will always require a second system for maintenance management, which then puts the use of ePS Network Services generally in question.

Requirement

- Maintenance plans, which are stored in the system even without control mechanisms.
- Grouping of maintenance plans, in order to plan maintenance packages.
- Time control with calendar function and individual maintenance time frames, such as weekends, vacations, public holidays.

Approach

Maintenance plans are implemented in actions by control monitors. The time trigger is expanded by calendar functions and markable maintenance time frames.

The calendar functions can be defined across machines for user-configurable machine groups.

Note

Expansion of the time trigger

For all interval types a revision was made (minutes, hours, days, weeks, months). In addition, the item "Last execution" was transferred from the maintenance plans to the time trigger.

Direct configuration of the time interval has been removed from the maintenance plans.

Everything dealing with the time interval has been removed from the maintenance plans. Also for this reason, the time trigger has been made more user-friendly to ensure that maintenance intervals can be better mapped in the future. The decisive change here is that the machines using maintenance plans must always be connected, since the time component is handled via the time trigger (client trigger).

7.2.4 E-mails with machine master data (FEAT 244.6.2.5)

Status

The user receives e-mail notifications containing the machine ID, the time of the event that caused the notification and the details of the event.

Problem

From the e-mail, the recipient cannot directly determine which machine is affected, where (at which customer) it is in use and under which machine number it is listed. The search for the machine via a WWS is not only laborious, but partly even possible without the support of a third party authorized to operate the WWS.

Requirement

A selection must be provided that enables the user to make a setting that the machine master data is to be included in the e-mail notifications.

Approach

When configuring a machine, the user shall be able to select whether e-mail notifications are to include complete information for identification or only the machine ID.

7.2.5 Variable monitor UCS491 (FEAT 268.2.1.1)

Problem

In general, NC monitors and PLC monitors in the current system are monitors that record variables from the control system - in one case from the NC and in the other case from the PLC - via a trigger (usually a cyclical time trigger).

The concepts of the two functions have hardly any differences, but they have been implemented completely separate from each other and differently.

The NC monitors have been implemented approximately one year before the PLC monitors. NC and PLC monitors differ in the operator control options of the display, as well as in the configuration and the integration in the control monitors.
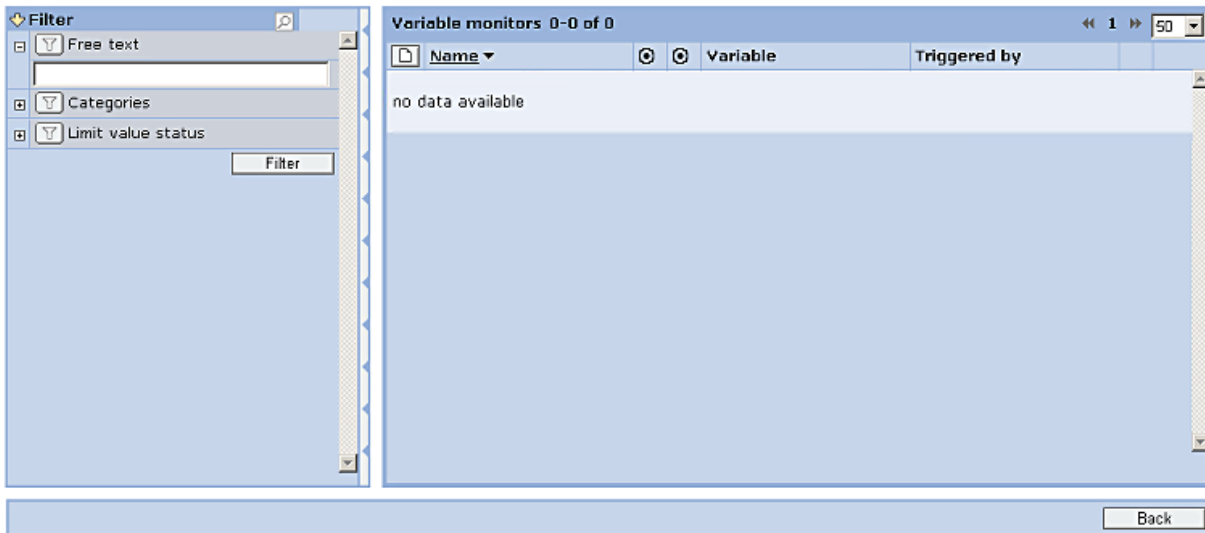
Since the two functions are not based on a common implementation, changes that are to be implemented for NC and PLC monitors are to be carried out always at two points.

The current NC monitors provide the option to select from a list of available counter variables. As the user cannot be expected to accept a step back in user-friendliness (the variable monitors do not offer a selection of the variable), the current NC monitors will be retained in addition to the new variable monitors for the time being.

In the first stage, the system will not offer an option to select variables to be recorded from a list of available variables when configuring a variable monitor.

Variable monitors will replace the current PLC monitors. The data acquired previously via PLC monitors must be transferred into the variable monitors.

Variable monitors

⬦ Filter	🔍	Variable monitors 0-0 of 0		⏮ 1 ⏭ 50 ▾	
⊟ ▽ Free text		🗋 Name ▾	◉ ◉ Variable	Triggered by	
⊞ ▽ Categories		no data available			
⊞ ▽ Limit value status					
Filter					

Back

7.2.6 Characteristic Linear trend (FEAT 268.1.1.6.1)

Problem

The torque characteristic of the equability test often exhibits a curved baseline. This baseline often occurs in the case of axes with counterweight. The baseline prevents other disturbances (peaks, jumps, oscillations, ...) from being monitored via the statistical characteristics of the equability test (min, max, ...).

The baseline can be direction-dependent.

- Extract the signal proportion of the baseline from the torque characteristic.
- Quantify the curve of the baseline (linearly, in the first approximation), so that the baseline can be monitored via limit values.
- Correct the torque characteristic with regard to the baseline and calculate the statistical characteristics (min, max, ...) on the basis of the corrected torque characteristic.

Approach

Development of a method, which determines a linear trend in the raw data of an equability test. Initial analyses have shown that a method using the minimization of the error squares of the individual measuring points is not sufficient, as outliers in the equability test are overproportionately taken into account.

The system presents the user the linear trend in the form of new characteristics:

- Trend gradient (gradient of the straight line) with configurable limit values
- Trend offset (offset of the straight line) possibly as a substitute for the current average of torque/force

The already defined characteristics min torque, max torque as well as standard deviation of the torque are only calculated and stored from the corrected data.

The new characteristic must be included in the field of Reporting for the organization DC OM651 as well as handled in the Control Monitoring event history.

The conversion of the old equability test characteristics via a business converter run is required after the introduction of the linear trend.

A conversion must also be carried out for a conversion of a machine from V3 to V4.

7.2.7 Executing contour test in single block (FEAT ...)

Problem

In order to test the prolog/epilog program, the operator might like to go through the program during a contour test in single block. However, at the current stage of implementation, this results in the contour test being aborted.

Approach

The contour test is supposed to execute the prolog program and, if possible, also the measuring program in the single block, without any additional configuration.

7.2.8 Separation of the equability test limit values for vertical axes (FEAT 268.1.1.10)

Problem

For vertical axes, the torque values for the two directions have strongly different values. Currently, the limit values can be defined only jointly for both directions. Monitoring of the torque values with limit values is therefore hardly possible for vertical axes.

Approach

The configuration of the equability test needs to be extended in such a way, that a warning and critical limit can be configured for each torque characteristic per direction of motion.

On the user interface, the possibility of switching between joint/separate display will be offered in the measurement series configuration. If no motion-specific limit values have been configured, joint display is used at the beginning.

When switching from direction-specific limit values to common limit values, a corresponding confirmation prompt is displayed: provided that different limits have been defined for the individual directions.

The display of the characteristic curve within the configuration is depending on the currently selected display type and the selected limit values.

Equability test measuring series

Parameters of the measuring series				
Name	GLT X axis			*
Channel Channel1		**Start point**	-150 mm	*
Axes X1		**End point**	250 mm	*
Limit values ☑ Separated according to direction of motion		**Feedrate**	1000 mm/min	*

👁 Torque Ø -> UL			Nm	**measuring series - graphic**
Torque Ø -> LL			Nm	
👁 Torque Ø <- UL			Nm	no measurement data present
Torque Ø <- LL			Nm	
👁 Torque σ ->			Nm	
👁 Torque σ <-			Nm	

7.2.9 Skipping measurement series in the prolog (FEAT 268.1.2.18)

Problem

The intention is to selectively skip execution of a pending measurement series via the prolog/epilog program and to ensure that the axis movements are not executed. However, this is not supposed to result in the cancellation of the test series.

Specific case: Machine has two pallets, an axis is installed on Pallet 1. Therefore, the B axis may only be moved in the range of +/- 100°. This must be recognized in the prolog and the motion must be canceled if the limited traversing range is violated.

Approach

The prolog/epilog program called in the context of the measurement series signals via a return value that the measurement series must not be executed. Thereupon, the measurement movement is not executed. In a test series, the affected measurement series is marked in the log as not executed and the next measurement series is then carried out.

Extract from the V4.6 function manual:

Description of the return parameters

You can influence the measurement via the return parameters. The return values are always queried after call with doProlog = True and testType = " ", i.e. after the prolog is called for each measurement series. The process then continues according to the returned values.

Parameter	Equability test	Circularity test	Universal axis test
`ePS_error`	0 =	Carry out the measurement (default setting)	
	1 =	Suppress the measurement, continue with the next measurement series, no error display.	
`ePS_errMsg`	Reserved for future expansions		

Example from the prolog / epilog:

```
IF (testType == "EQUABILITY")              ; actions for all equability
                                            tests, e.g. approaching the
                                            start position

  IF (axParam1 == C) AND (realParam1 > 300) ; example of using the return
                                            parameter ePS_error

  ePS_error = 1                             ;the equability test with the C
                                            axis is to be skipped

  ENDIF
  IF (measSeriesName == "")                 ; specific actions for single
                                            series of measurements

  ENDIF
ENDIF
```

7.2.10 Export of axis test data, measurement series, monitors for graphic processing (FEAT 268.1.2.20)

Example: Individual measurement

< Position X1 <	Torque (pos.)	< Position X1 <	Torque (neg.)
2.800.897	0.0502738235317234	7.139.076	0.0555297292997933
28.21	0.123327386960531	71.19	0.156524871156256
2.840.917	0.1233280454801728	7.099.037	0.15652004035732
28.609	0.146433698496593	70.791	0.134515215850062
2.840.946	0.146487110051778	7.059.017	0.134510356012611
29.009	0.0855402764776069	70.391	0.685055363451055
2.840.913	0.0855936001029577	7.019.071	0.685006895749862
29.409	0.686468544586208	69.99	0.0904958326413868
2.840.877	0.687000821667887	6.979.075	0.0904910110379804
29.809	0.165753432439635	69.591	0.164486177335193
3.000.921	0.165806777383582	6.939.031	0.164481320885569

Example: Measurement series

CHANNEL1_GLT_X1

Thursday, 22 March 2007	Torque ∅ ->
22.03.2007, 09:25	0.113336407318923
22.03.2007, 09:30	0.111383370463259
22.03.2007, 09:58	0.105939891958589
22.03.2007, 10:06	0.11343074010751
22.03.2007, 10:09	0.106269508056534

History of changes to the system behavior up to V4.7   8

8.1   V04.07.00.00

8.1.1   Selecting machines or machine groups

New pop-up window

To use the "Select machine" function, you must enable the pop-up windows for ePS Network Services in Internet Explorer.

Selecting machines and machine groups

The changes compared to V4.6 can be summarized as follows:

The "Select machine" page was replaced with a pop-up window for selecting a machine or a group of machines. The pop-up window can be opened in any page and is retained permanently as long as the user does not close it. However, it can be minimized or be moved to the background.

The machine selection tree was removed from all pages, meaning that machines are now selected in the pop-up window.

This pop-up window now provides the enhanced and improved filter options requested by customers, for example filtering by manufacturer name and the option of defining a target column for full-text searches.

The machine selection tree was expanded so that it supports the selection of single machines and of machine groups.

New selection of a group of machines

The "Machine selection" window allows you to select any group of machines. This selection is consistently active in all multiple machine views and is saved for the specific user.

Call: Click "Select machine" to open the pop-up window of the machine selection.
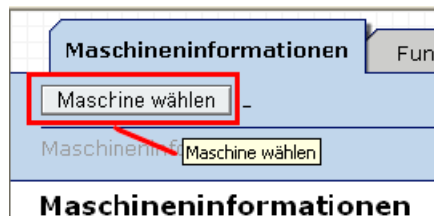
Note

Important change to system behavior:

To use the "Select machine" function, you must enable the pop-up windows for ePS Network Services in Internet Explorer.

8.1.2   Example: Selecting machines or machine groups

Example

An organization has 2 customers: Customer "A ePS&RTS" and "ePS&RTS".

Each one of the customers has three machines:

- Customer "ePS&RTS" → "Machine 1" ; "Machine 2" ; "Machine 3" ;
- Customer "A ePS&RTS" → "A Machine 1" ; "A Machine 2" ; "A Machine 3" ;

View after initial opening of the "Select machine" window:
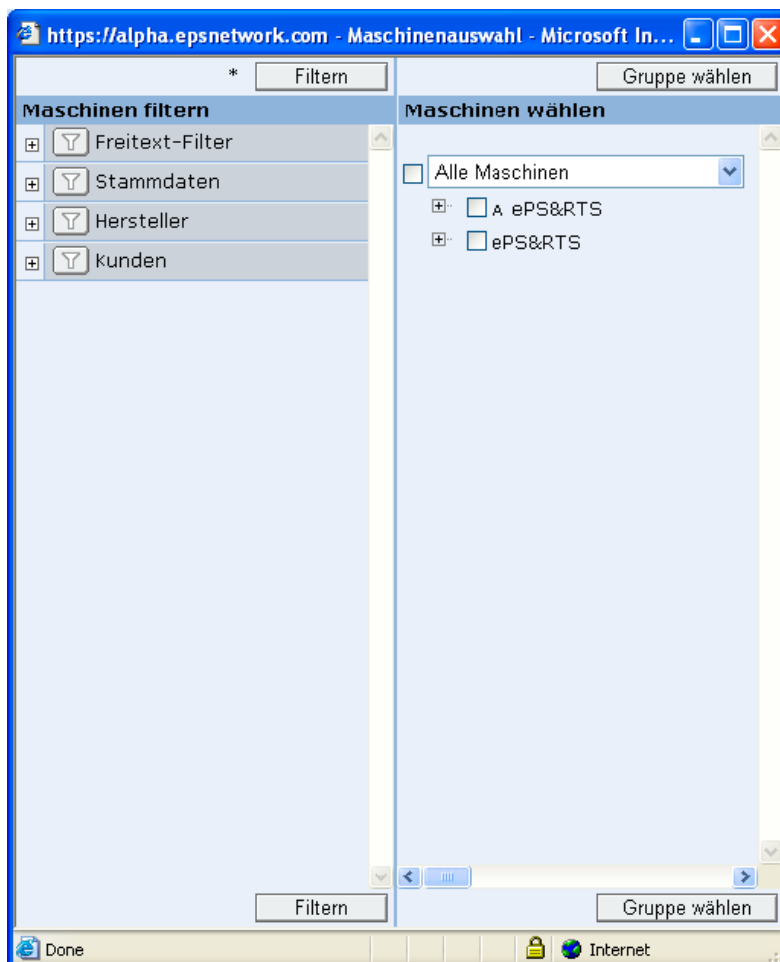
Figure 8-1   Pop-up window

The left window pane displays the filter range with filtering result that determines the content of the right window pane. In the right window pane, users can select either a single machine, or a machine group.

Selection of a single machine for editing the configuration of a selected machine using the "Set up functions" dialog, or for viewing machine information.
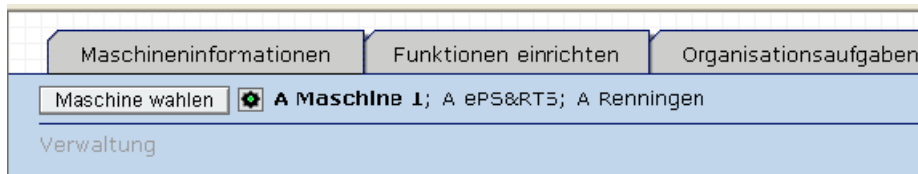
Selection of a single known machine

8.1.3 Example: Selecting "A Machine 1"

Example

"A Machine 1" is to be selected.
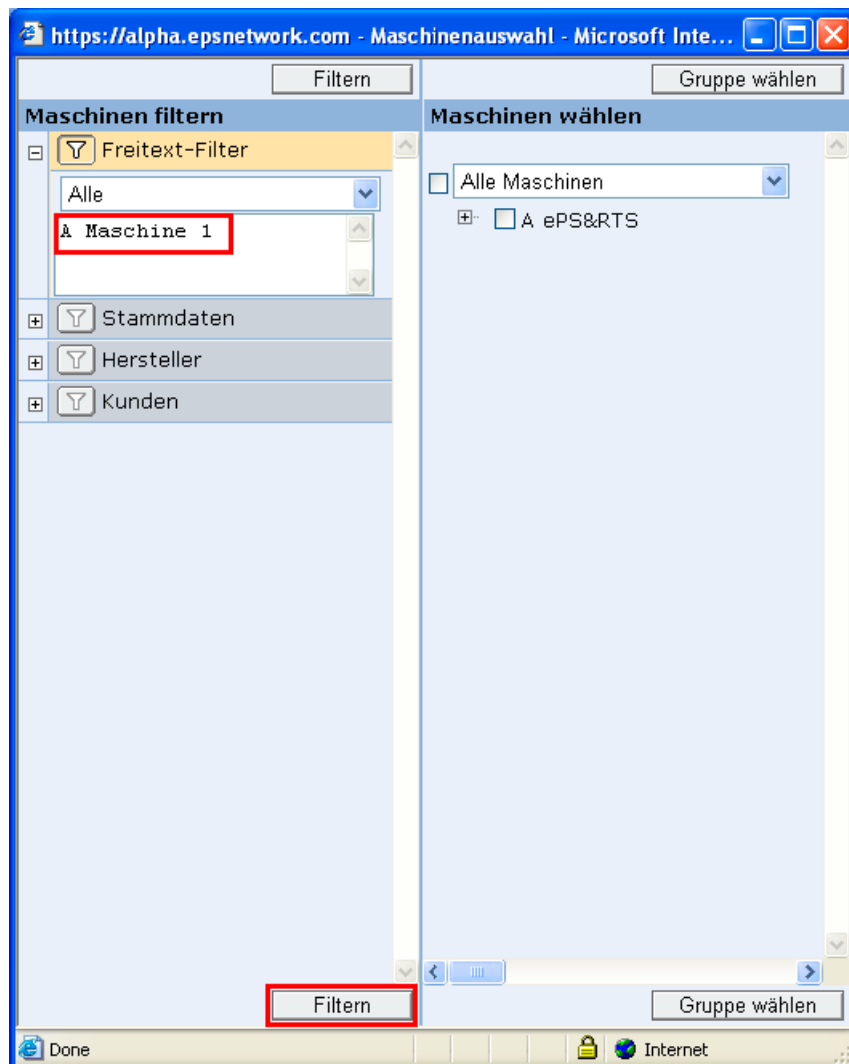
- Action:

  In the area of the full-text filter, type in "A Machine 1" and then click "Filter".

- Effect:

  "A Machine 1" is selected immediately for editing without any further action.

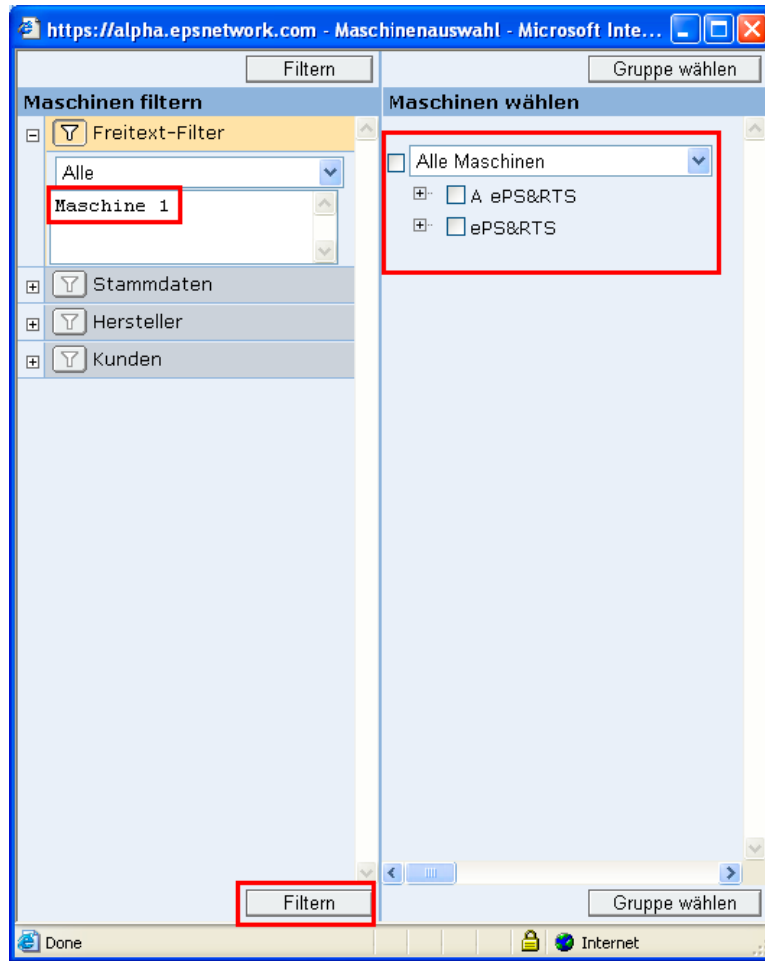Selecting a single machine of which only part of the machine ID is known, or if the filter result is indefinite.

8.1.4 Example: Selecting "Machine 1"
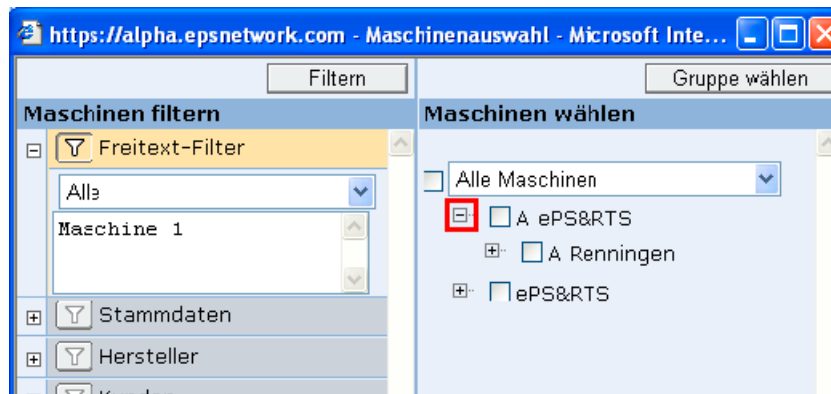
Example

"Machine 1" is to be selected.

Filtering based on the "Machine 1" criteria in the full-text filter returns two customers with "Machine 1" entry.
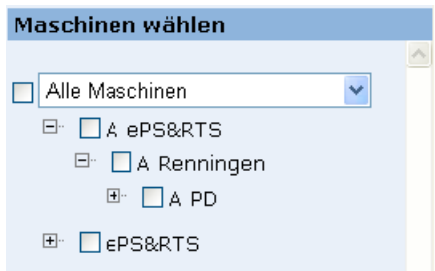
However, the machine ID is not displayed as expected.

The machine is selected and displayed in the right window pane by clicking "+" to expand the tree view.
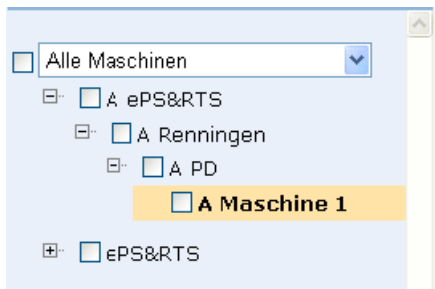
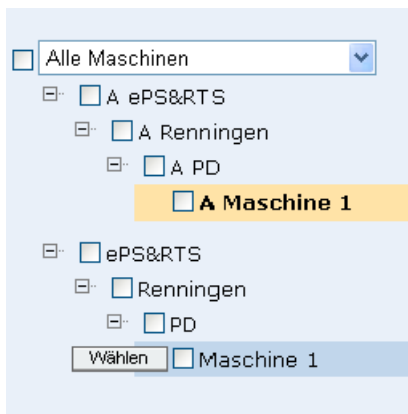If the customer is unknown → … expand the customer entry "A ePS&RTS".
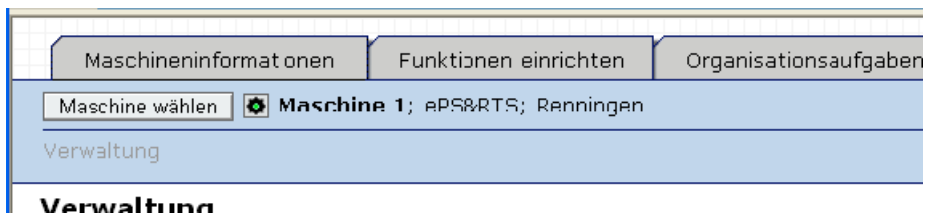

... Expand location 1 "A Renningen"

… Expand Production unit "A PD"

…. Continue at the next customer until you find the required machine:

Click "Select" to select the machine.

Note

Once a machine has been selected it is displayed on a background color and cannot be selected a second time.

Selecting a machine group to use the following functions:

- At the "Organization tasks" tab for using the "Maintenance jobs" and "Service events" functions

- At the "Statistics / Export" tab for using all functions of the "Multiple machine view" category, including "Export of PLC Data" and "Synchronization overview".

- At the "Management" tab for using the "Machines" function of the "Organization management" category.

Note

A machine group can also comprise all machines of an organization. This corresponds with the previous representation (V4.6) of the "Multiple machines" function described above.

Selecting a group of known machines.

8.1.5 Example: Editing machines

Example

"Machine 2" and "A Machine 2" are to be selected for viewing and editing in the management dialog.

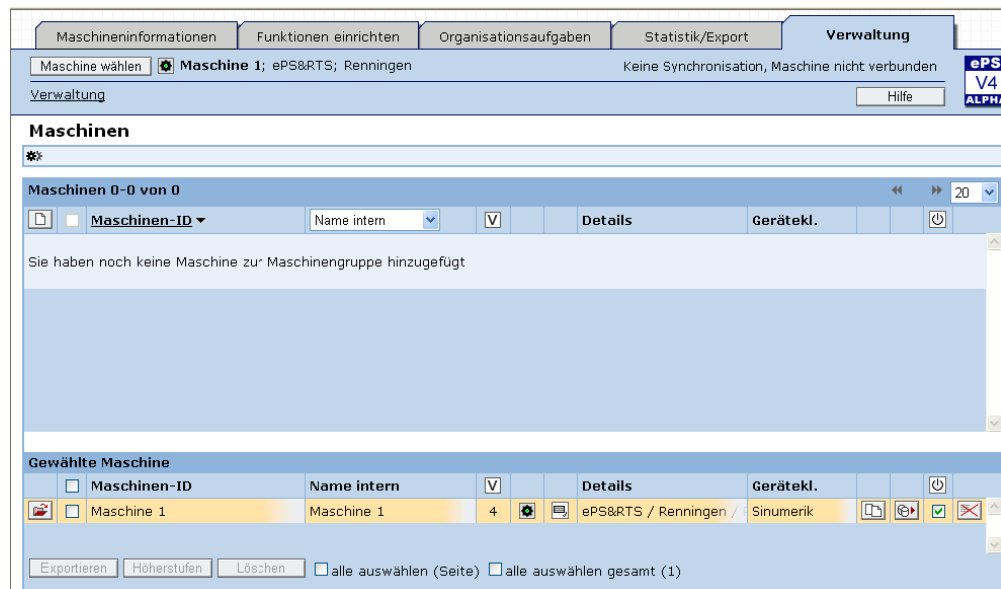Initial situation: "Machine 1" is already selected.

Figure 8-2   Management → Machine

Selecting the machine group by clicking "Select machine".

Note

The representation of the "Select machine" window is saved for the specific even after the session was closed.

8.1.6   Example: Using filters

Example

A window displayed after reset of the filter settings is used in the next example in order to provide a clear overview.
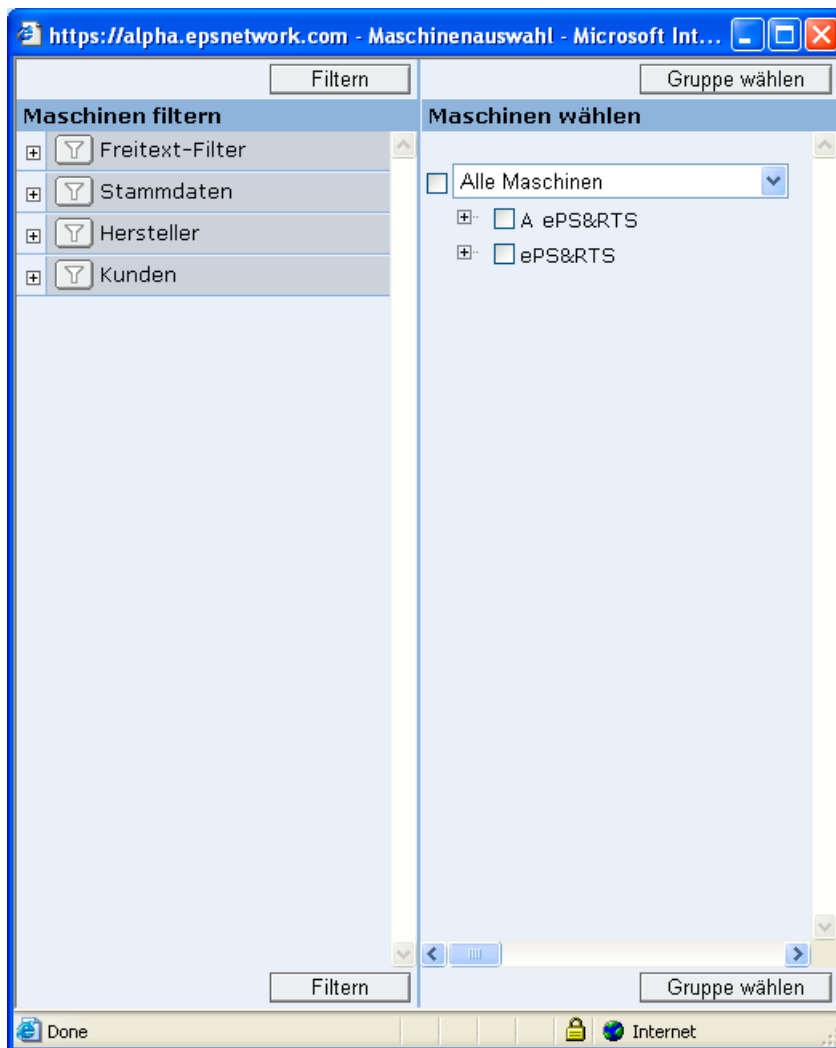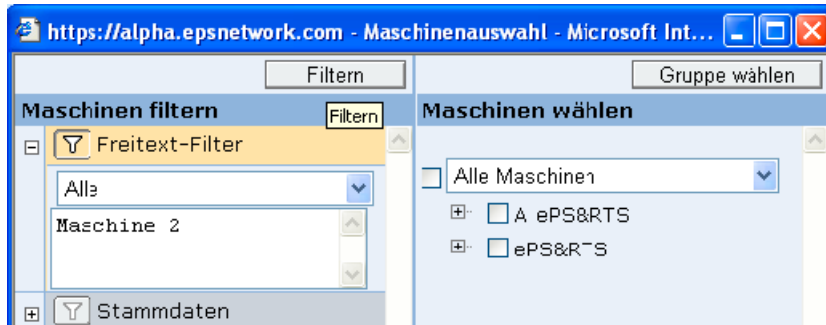
Initial representation:

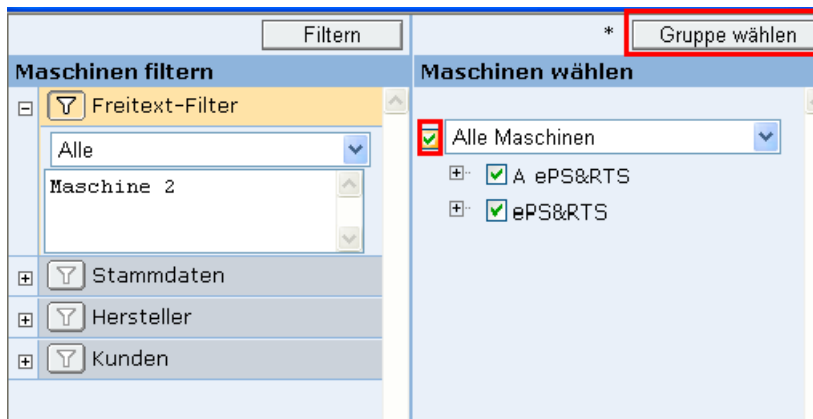
Figure 8-3   Management → Machine

Open the full-text filter and filter based on machine criteria:

The filtered setting can be selected by setting the "All machines" option and clicking "Select group".

Note

To obtain a preview of the filter setting before selecting the machine group, expand the tree view to the level of single machines by clicking the "+" icon.

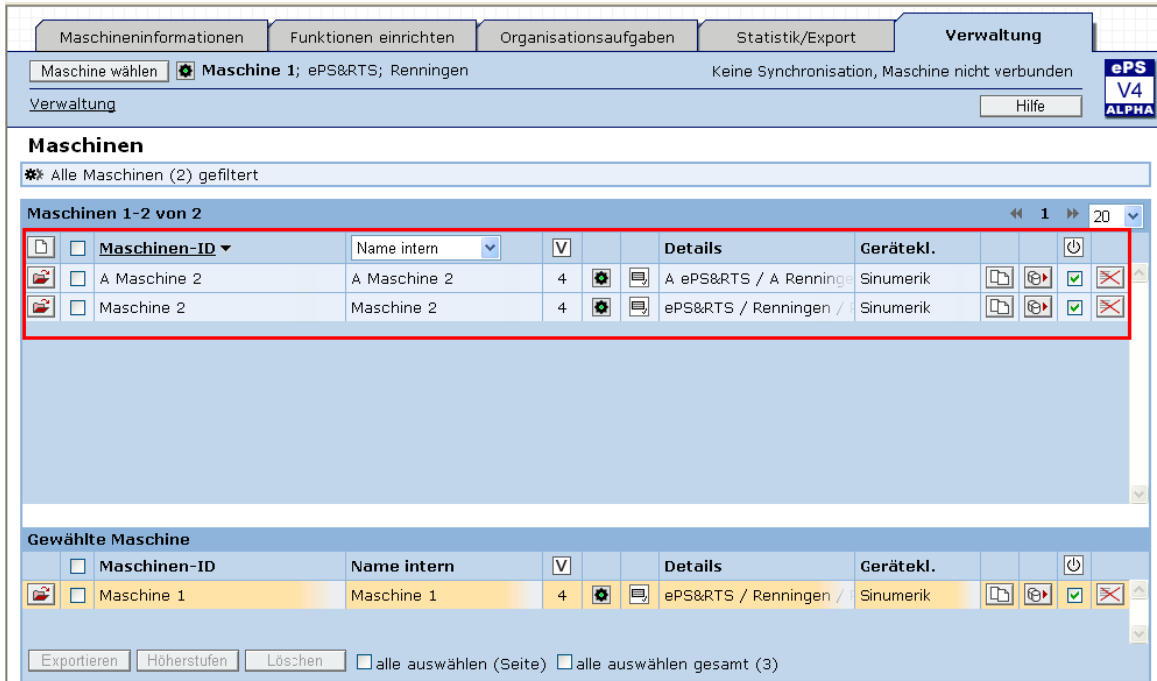…the resultant selection of machines and the view in management:

Figure 8-4   Management → Machines

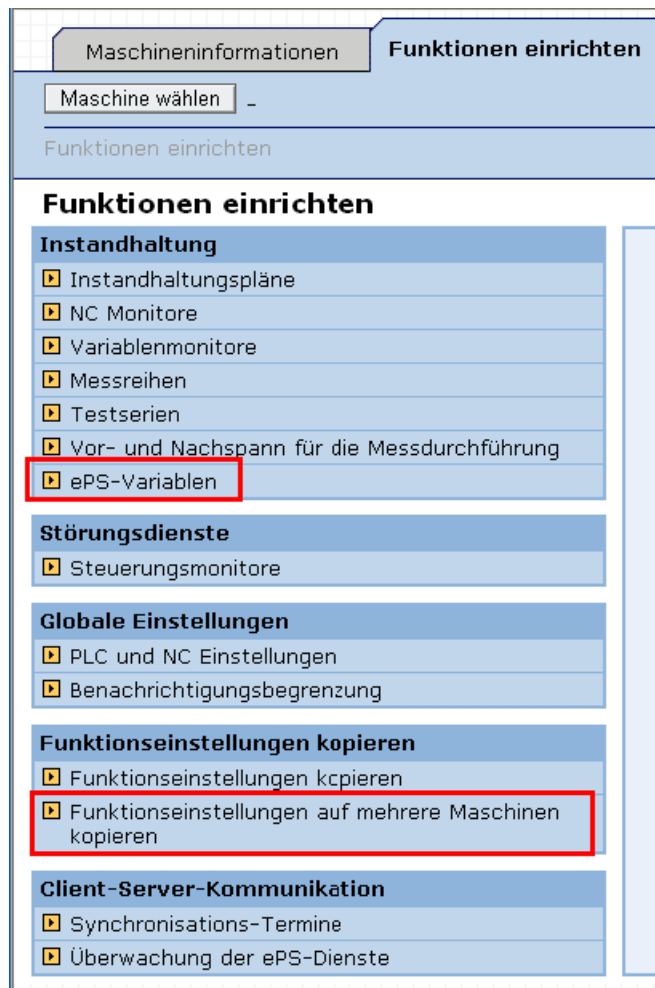The filtered machines "A Machine 2" and "Machine 2 " can now be edited or be used.

8.1.7 Changes to the menu

Changes to the menu

Changes made in the following tabs:

- "Set up functions" tab

Note

"Monitoring ePS services" menu

This overview was removed from the PC user interface as most of the information displayed in this view is useless in V4.7. The configuration is currently still visible.

- "Statistics/export" tab

  "Monitoring of ePS services" has been removed from the "Overviews" area.

  Statistik/Export

  Mehrmaschinenansichten
  - ▶ Maschinenereignisse
  - ▶ Summarische Darstellung der Maschinenereignisse
  - ▶ Messreihen
  - ▶ Reports

  Import
  - ▶ Aktive Import-Vorgänge
  - ▶ Datei importieren
  - ▶ Verzeichnis importieren (benötigt ActiveX)

  Export
  - ▶ Export von PLC Daten

  Übersichten
  - ▶ Synchronisationsübersicht

- "Management" tab

  Verwaltung

  Verwaltung der Organisation
  - ▶ Adressen
  - ▶ Benutzer
  - ▶ Maschinen
  - ▶ Stammdaten bearbeiten (keine Maschine gewählt)
  - ▶ Organisationsdaten

  Es ist keine Maschine gewählt

  Persönliche Einstellungen
  - ▶ Passwort ändern
  - ▶ Datenschutzrichtlinien
  - ▶ Filter- und Sucheinstellungen rücksetzen

8.1.8 Changes to the user interface

Change at "Machine information"

Modified filter function:

Figure 8-5   Machine events - Detailed view

8.2 V04.06.00.00

8.2.1 Changes to system behavior in V4.6

Modified system behavior V04.06.00.00 SL14

Here, the changes in the system behavior compared to the latest released version V04.05.03.00 are described:

Variable monitors replace the PLC monitors

In V04.06.00.00, the new variable monitors replace the previous PLC monitors. The previous menu item under "Configure functions" changes from PLC monitor to variable monitors. The configuration of the monitors changes accordingly.

For further information, please refer to the Function Manual for V04.06.00.00.

Configure functions

Maintenance
- ▶ Maintenance plans
- ▶ NC monitors
- ▶ Variable monitors
- ▶ Measuring series
- ▶ Test series
- ▶ Leader and trailer for taking the measurements

Fault services
- ▶ Control monitors

Global settings
- ▶ PLC and NC settings
- ▶ Notification limitation

Copy function settings
- ▶ Copy function settings

Client/Server communication
- ▶ Synchronization schedules
- ▶ Offline synchronization
- ▶ Monitoring of ePS Services

Display of the PLC monitors

PLC monitors can display other values than the newly calculated variable monitors. Under certain circumstances, PLC monitors had an incorrect compensation; this has been remedied in V04.06 with the variable monitors.

After installation of the V04.06.00.00 system in the productive environment of the ePS Network Services, both variants - the PLC monitor and the converted variable monitor - will be visible and usable in the system until the end of the conversion (several days). A difference between the values might be recognizable with a direct comparison of the monitors.

Ramp recognition of the equabiltiy axis tests - Incomplete representation of the graphics

Up to V04.06.00.00, it is possible that for some measurements the "braking ramp" is missing in certain circumstances, since we record only a restricted number of measuring points with the TraceServer or ServoTrace. The calculation of the recording time can only represent an estimate. It is thus possible in some cases that the braking ramp is truncated.

The procedure for calculating the area with constant velocity takes samples and attempts to determine the permissible velocity deviation; at some positions the velocity may lie outside of the calculated tolerance range, which leads to a truncation of this range. This is normal with specific velocity profiles of the equability test in combination with the calculation method.

V04.06 contains a more robust method for the calculation of the stationary state, which can also handle rather strong fluctuations in the velocity characteristic.

During a conversion to the V04.06.00.00 system, all existing measurements are also recalculated; this can lead to different (improved) representations compared to the previous server version.