HEXAGON

Q-DAS qs-STAT

Digital signature

Creating digital signatures

FAQ
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HxGN
Quality Assurance

Information about this document

Document History

Version	Date	Author(s)	Modifications / Remarks
v-1.0	19.03.2024	UB	Initial release (Q-DAS-5649/14.0.4.4)

Q-DAS qs-STAT

CONTENTS

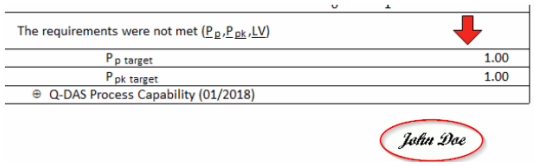
1 Functional description

Digital signing offers the option of adding a digital signature to files and reports loaded from the database within the Q-DAS applications or to confirm them. The data and reports confirmed in this way are stored in binary form in the database each time a signature date is created and can be fully reconstructed at any time using the corresponding evaluation strategy. It is also possible to attach a cover sheet before the signed report and output this with the report. The report is output as a PDF file.

It is generally not possible to work with signatures from DFD/DFX and DFQ files. Working with signatures is generally only possible with data sets from the database. Q-DAS only supports SQL / SQL Express and Oracle databases.

Please note that this is explicitly about the digital signing of data. This function is not a substitute for issuing a "simple" signature within a report file. The function shown here is mainly aimed at customers from the FDA environment.

A separate document is available in the Q-DAS Product Line Documentation Centre for integrating a simple signature.



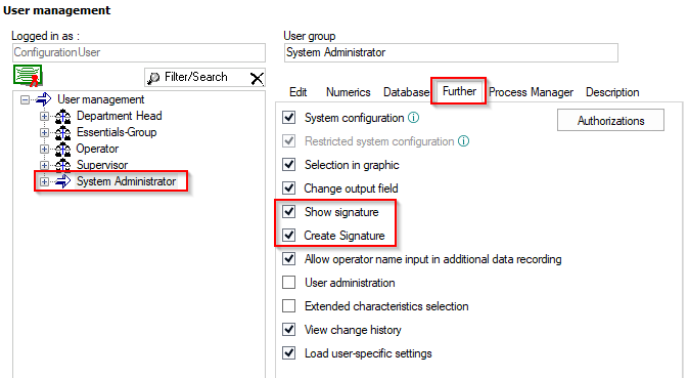
2 Availability of the digital signature

The digital signature option is available in the following Q-DAS applications.

- qs-STAT
- procella
- O-QIS (procella / CMM Reporting not Alert Manager / not long term analysis)
- solara.MP
- Initial Sample Report (ISR)
- destra
- QAE

3 User rights

The following user rights within user management are required to create or load a signature.



4 Memory locations Database

The digital signature entries are stored within the database in the following tables:

- SIGNATURE
- SIGNATURE_FILES
- SIGNATURE_MASTER
- SIGNATURE_REASON
- SIGNATUR_KEYS

5 Cover sheet

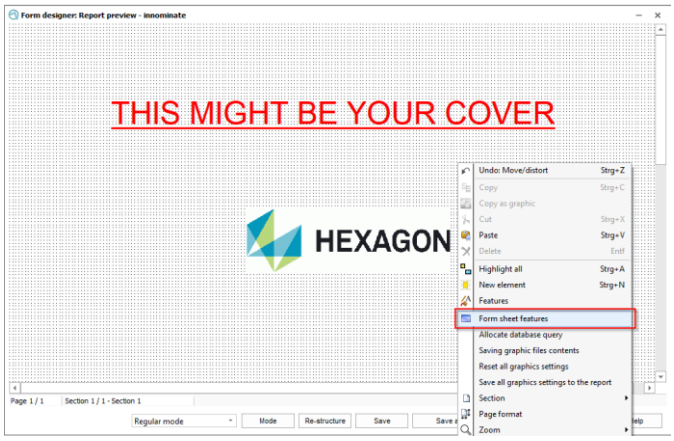
An individually created cover sheet can be stored before the actual signed report. To do this, a corresponding report file must be created using the form designer (Q-FD).

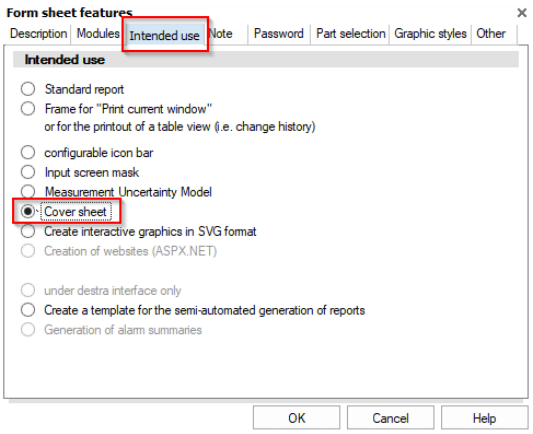
Please note that the form designer (Q-FD) is a fee based product.

This additional function has no effect on the actual function of the digital signature. If you **do not** use a cover sheet when creating the signature, section. 5 can be completely disregarded and does not need to be taken into account when handling.

5.1 Determine as cover sheet

The corresponding report file must be marked as a "cover sheet" using the form designer.





5.2 Requirement for use when merging

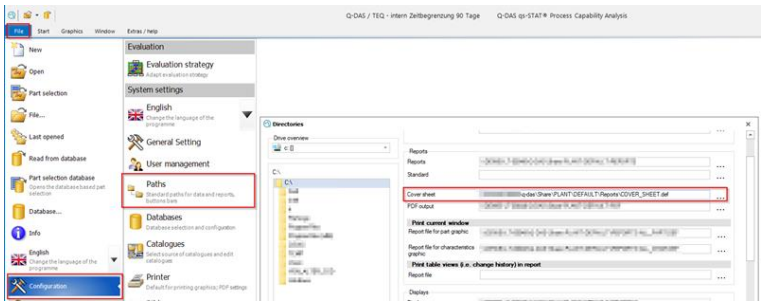
In order for the cover sheet and the report file to be merged in the digital signature, the paid application "Adobe Acrobat Distiller" is required.

Only this additional and chargeable software merges the deposited cover sheet when creating a signature.

Please note that the required license for Adobe Acrobat Distiller cannot be obtained via Q-DAS. If you have any further questions, please contact the producer of the software directly.

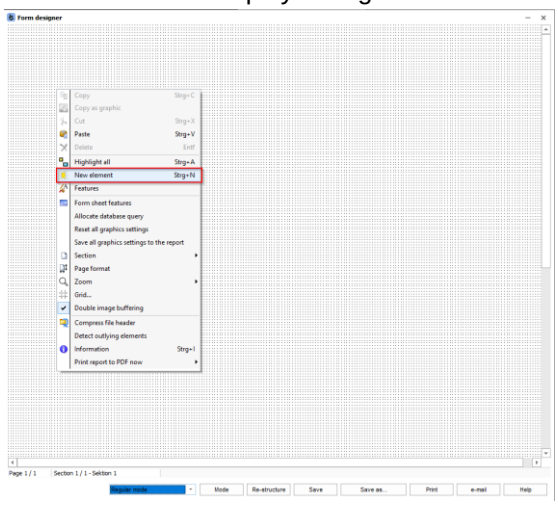
5.3 Store cover sheet

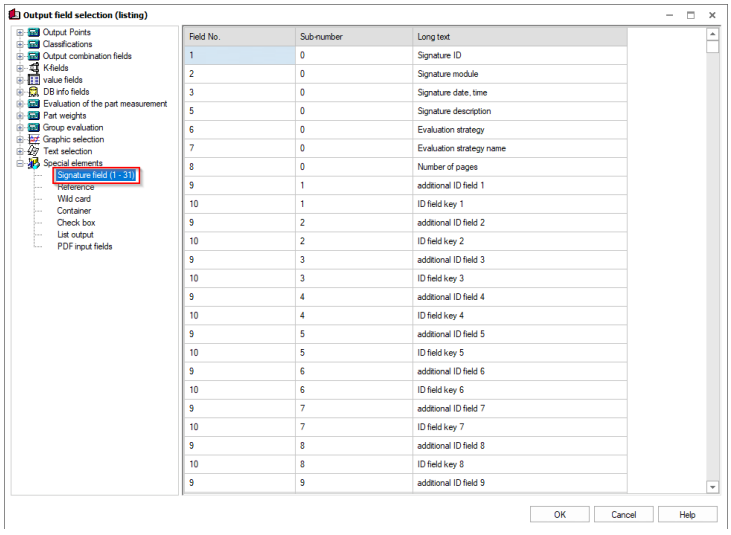
The report file marked as a cover sheet must be stored in the paths of the Q-DAS application. If it is used, the stored cover sheet is used automatically.



5.4 Special output fields

If a report file has been marked as a cover sheet in the form designer, special output fields (signature fields) can be added for display via right-click.



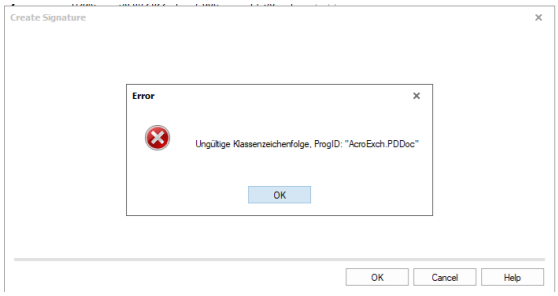


5.5 Known errors

Here you will find a list of known error messages in connection with digital signing.

5.5.1 Adobe Acrobat Distiller

If the cover sheet and signed report are merged, but the required Adobe Acrobat Distiller is missing, this error message appears.



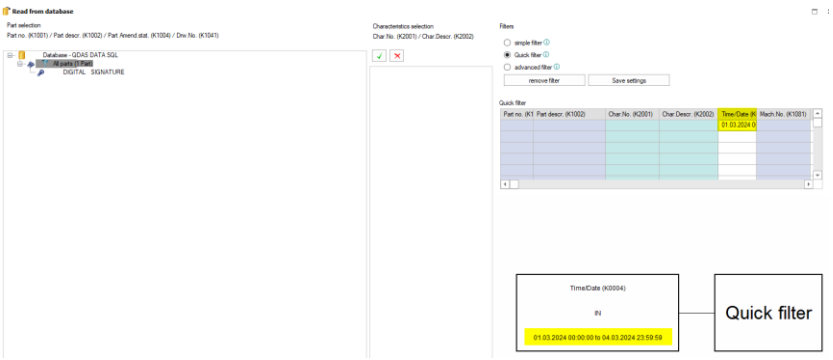
6 Create signature

A signature is generally created in two steps:

1. Load data set from the database
2. Select a report via the "Report selection" dialogue and then right-click to create a signature

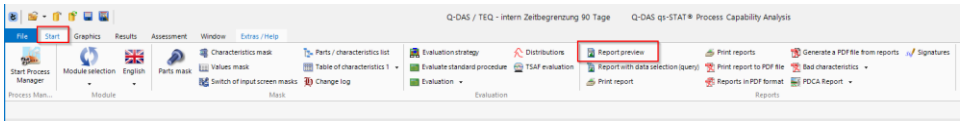
6.1 Load data

First, data is loaded from the database using a measured value filter (here in this example via quick filter / time period from X to Y).

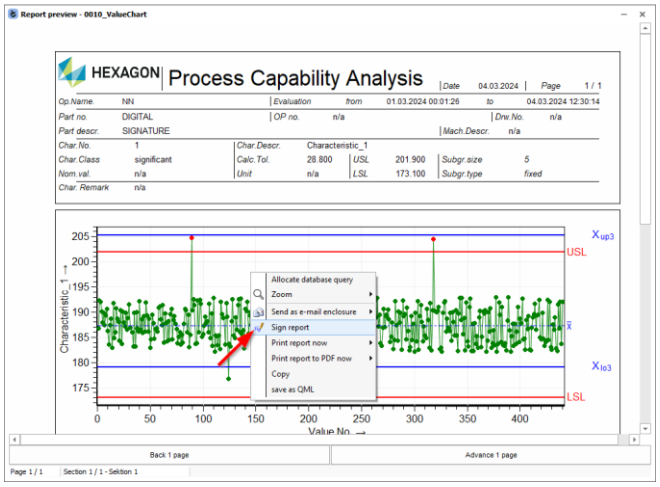


6.2 Open report view / create signature

A report file must first be selected via *Start|Report view.*



The signature can now be created by right-clicking within the report view

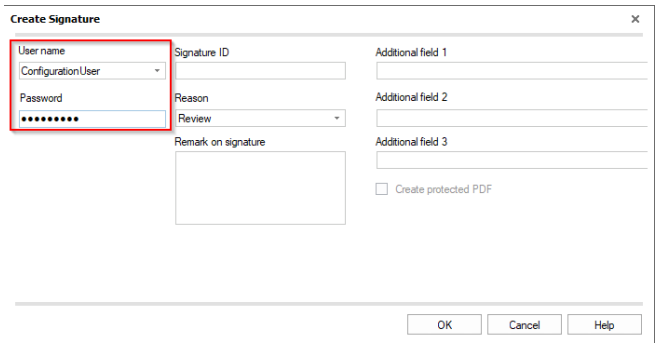


6.3 Create Signature" dialogue

The "Create Signature" dialogue can be used to store various information. Information can be stored in the "Create signature" dialogue so that it can be clearly assigned later. The information stored here is displayed in the "Signatures" dialogue.

6.3.1 User selection / user password

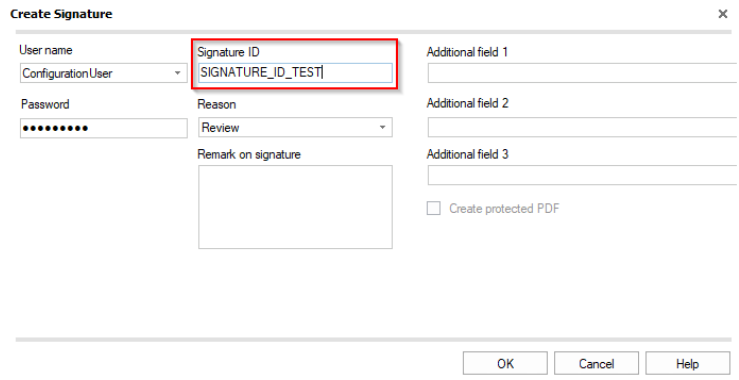
A user with the appropriate user rights must first be selected in the top left-hand corner and the corresponding user password entered.



If the "Cancel after incorrect password entry" option is activated in user management, the corresponding option also applies in this dialogue if an incorrect password is entered.

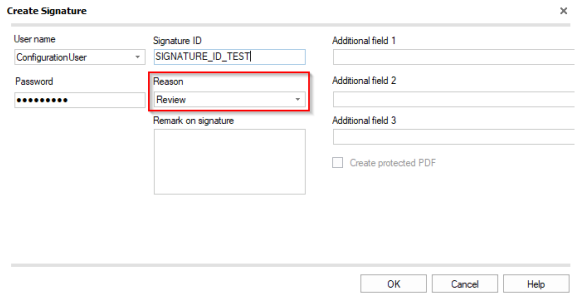
6.3.2 Assignment of signature Name

A unique name / ID must be assigned to the signature created under "Signature-Ident".



6.3.3 Selection reason

A reason for creating the signature can be selected here. Initially, only the reason "Review" can be selected here.



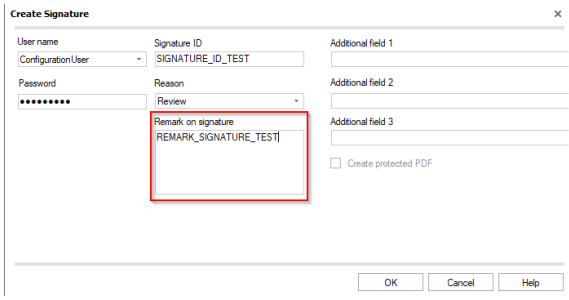
The following reasons are available across all modules:

-Review

- Approval

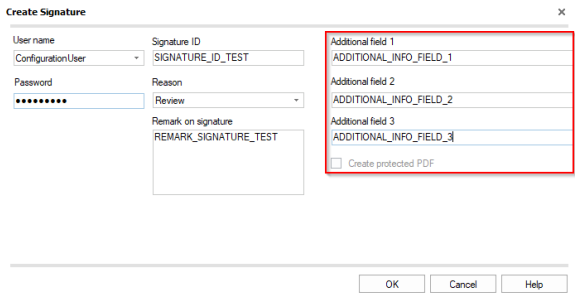
6.3.4 Remark

A remark can be added to a created signature here.



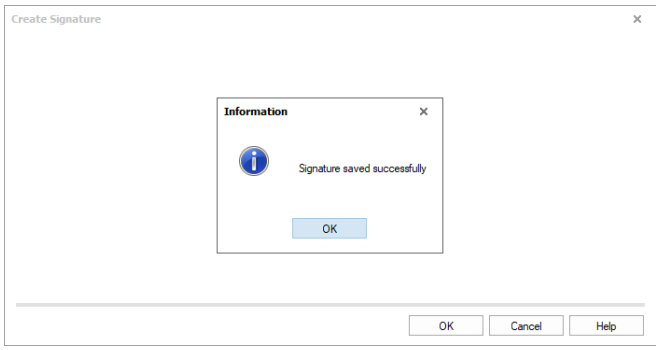
6.3.5 Additional information

Additional information can be added to a created signature here. The signature is created by clicking on OK.



6.3.6 Confirmation of signature creation

The successful creation of the signature is indicated by a corresponding message.

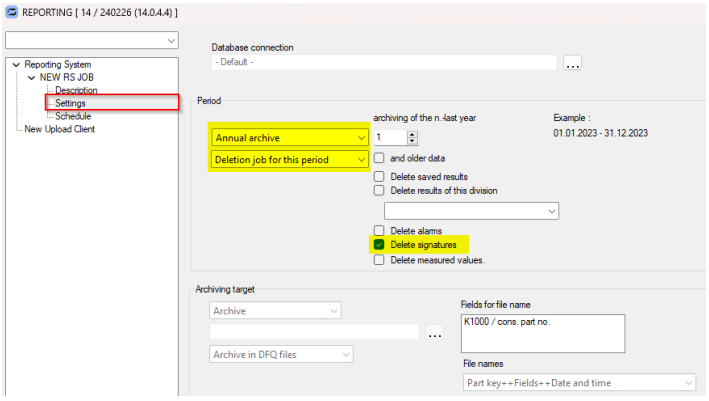


7 Delete signature manually

Manual deletion of digital signatures is generally not possible with the products listed in chapter 2.

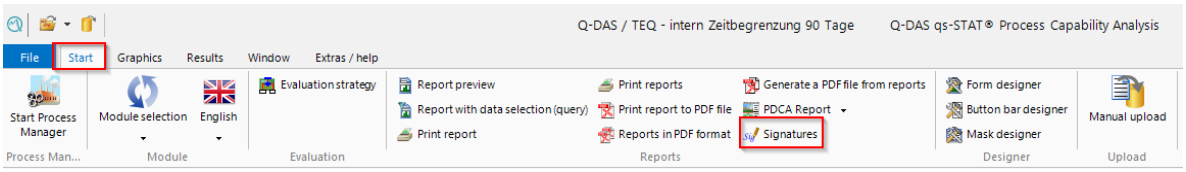
8 Delete signature via reporting job

A created signature can only be deleted using a reporting job via the M-QIS S Reporting System.



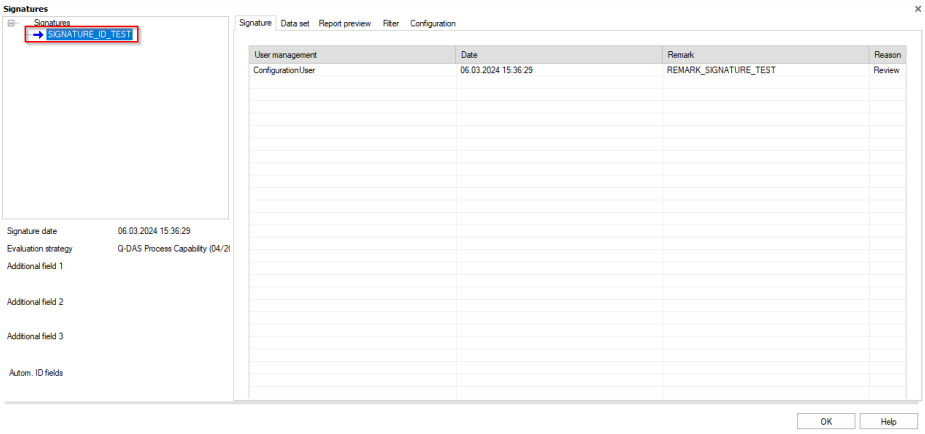
9 Display of created signatures

The signatures dialogue is called up via *Start*|*Signatures.*



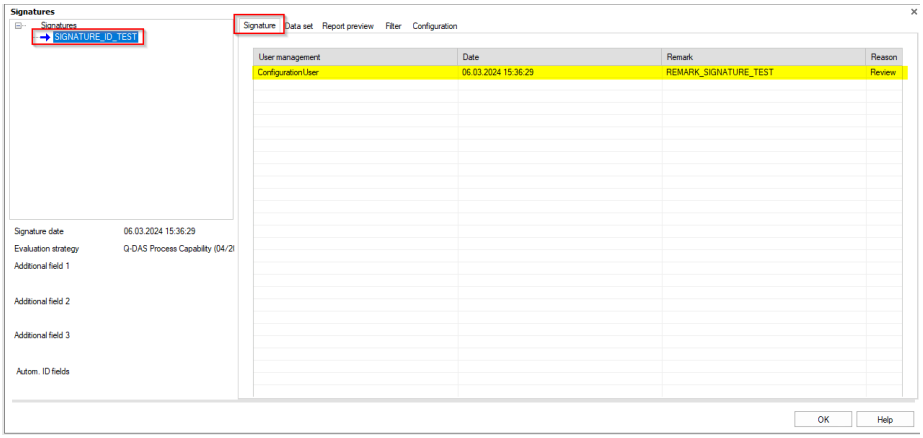
10 Dialogue of created signatures

The already signed reports are displayed in a corresponding overview via the signatures dialogue. All signatures created are displayed in this overview, regardless of the product/module.



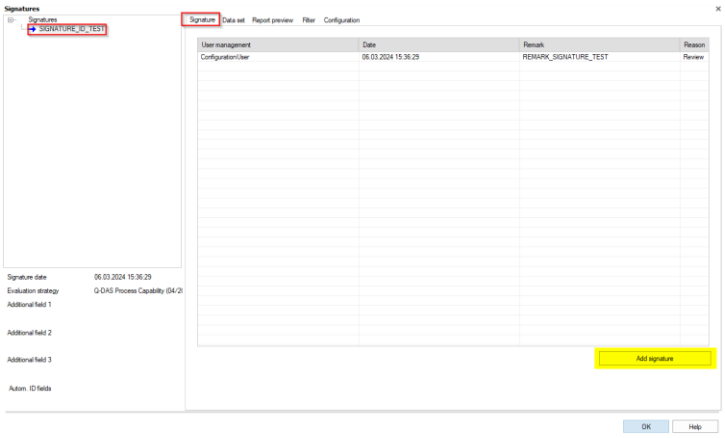
10.1 Tab - Signature

All signatures created are displayed here.

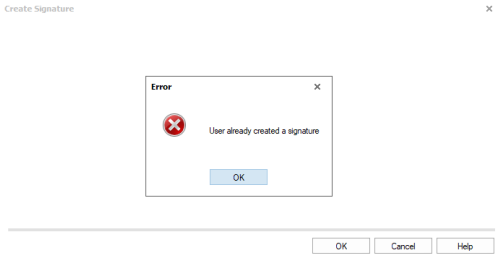


10.1.1 Add signature

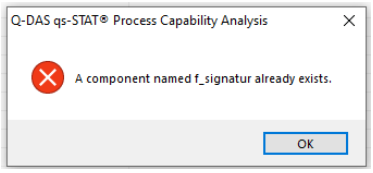
This can be used to create another digital signature.



A Q-DAS user can generally only sign one report within a signature. Each signature must be created by different Q-DAS users. If this is not the case, the following message appears when a signature is created.



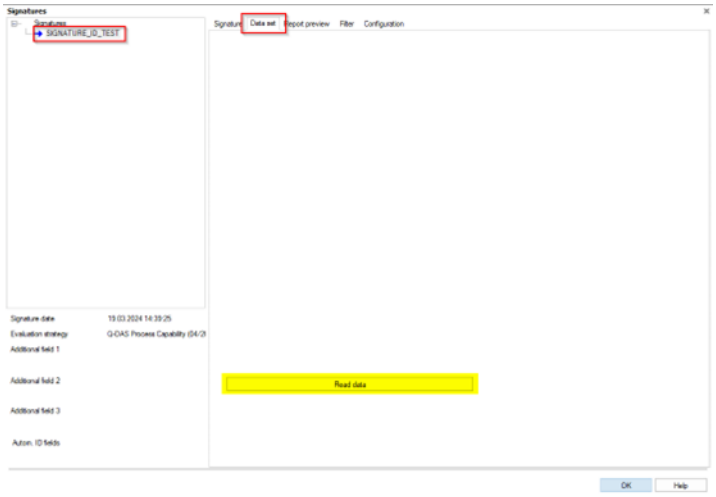
If the two standard reasons available (Review/Approval) have already been used, no further signature can be created.



Further individual reasons can be defined, stored and made available for selection in a corresponding workshop (subject to a charge).

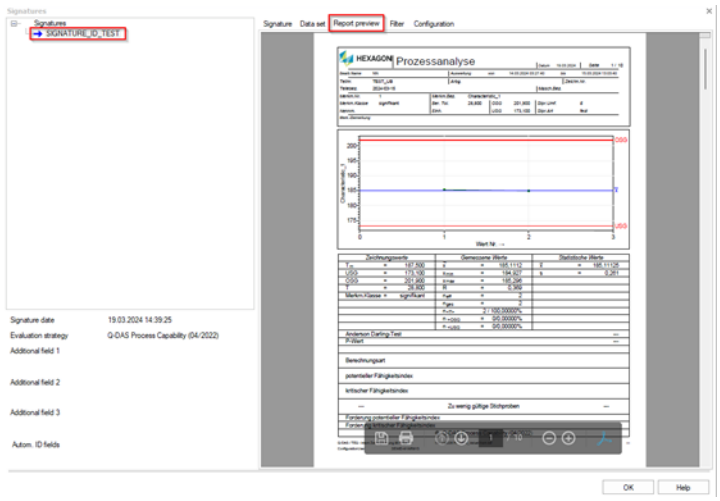
10.2 Tab - Data set

The "Read files" button can be used to load data sets that have already been signed.



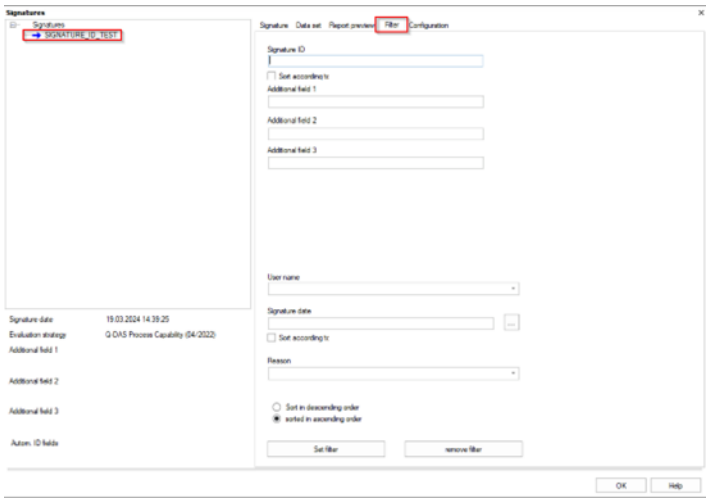
10.3 Tab - Report

This can be used to preview the signed report (including cover sheet if applicable). The prerequisite for the preview is that Adobe Reader is installed.



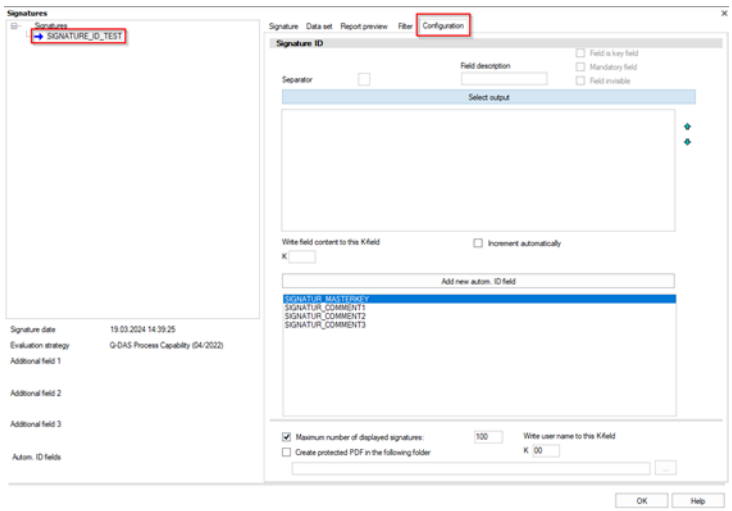
10.4 Tab - Filter

This can be used to restrict the list of signatures created using various filter criteria. The filter is executed via "Set filter" and cancelled again via "Remove filter".



10.5 Tab - Configuration

This can be used to define new input fields that can be queried and filled with content via the corresponding input mask when creating a signature. The new input field is created using "Add new automatic ID field" and then displayed in the input mask

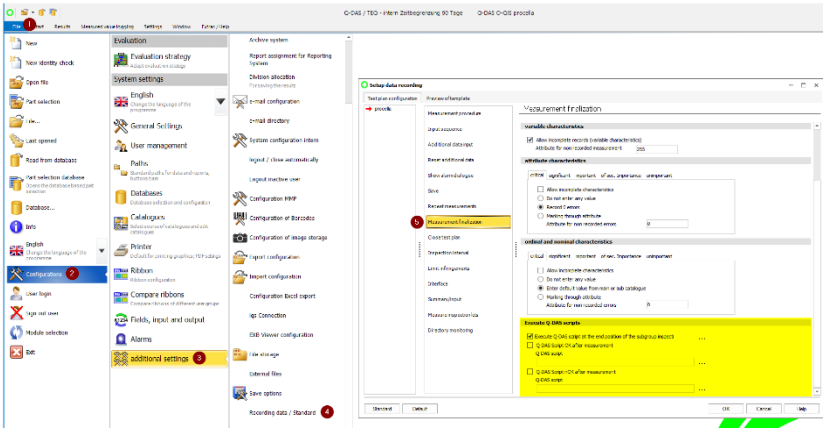


11 Automatic signature via script in procella

During data recording in (O-QIS) procella, it is possible to automatically create a signature by using a script.

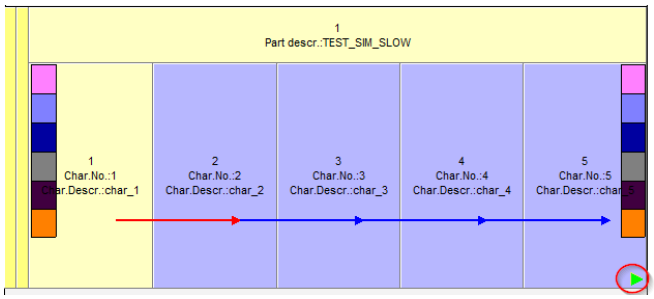
11.1 Execution Script settings in procella

Via Setup *data recording|Standard, the* following options are available for selecting at which point during the measurement procedure the corresponding script for creating a digital signature should be executed.



11.1.1 Display time execution script

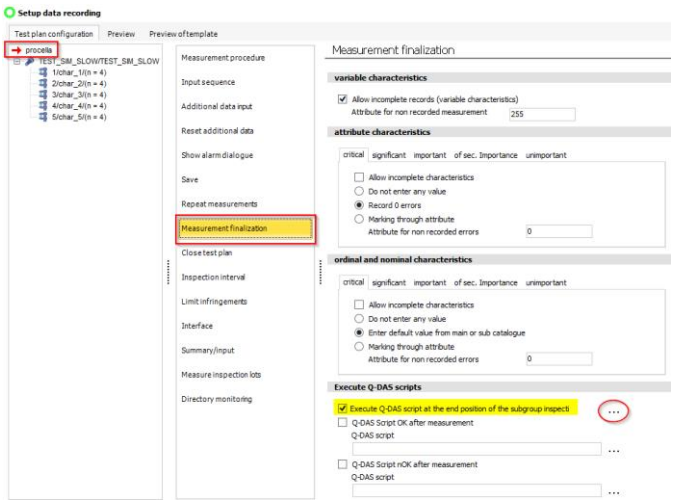
At what point during the measurement the stored signature script is executed can be seen from the "Signature" graphic at the play symbol.



11.1.2 Execute script at the end of the inspection

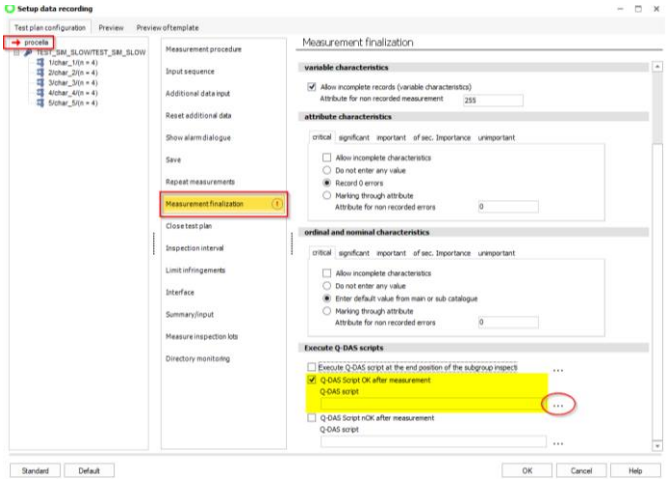
If you use this option, the script will be executed at the end of the inspection.

The corresponding script must be stored here:



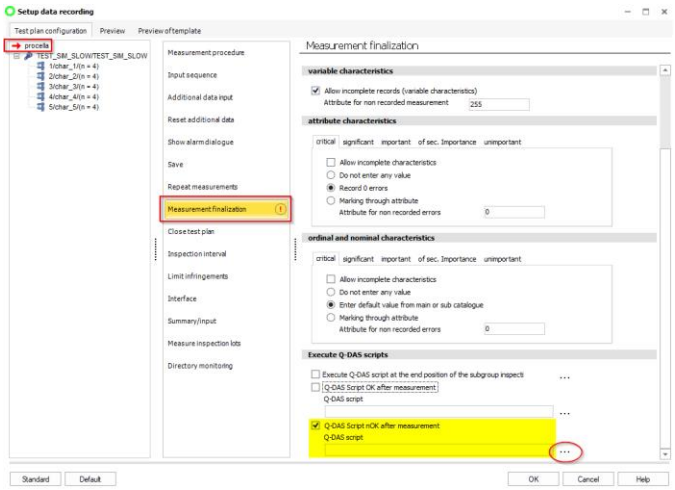
11.1.3 Script OK after measurement

If this option is used, the script is executed as soon as the measurement is deemed to be OK (measured values must correspond to the specifications of the evaluation strategy used). The corresponding script must be stored here:



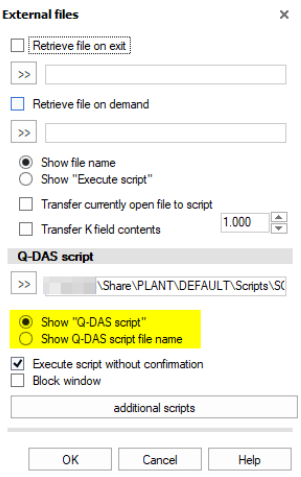
11.1.4 Script nOK after measurement

If this option is used, the script is executed as soon as the measurement is deemed not OK (nOK). (Measured values do not correspond to the specifications of the evaluation strategy used). Please note that the script is only executed if the alarm display is activated. The corresponding script must be stored here:



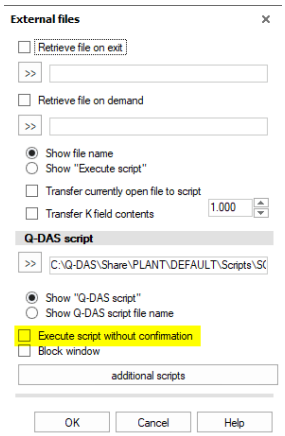
11.1.5 Display executed script

Here you can define what should be displayed in the confirmation dialogue when the script is executed. You can choose to always display the name "Q-DAS script" or alternatively the file name of the stored script.



11.1.6 Execute script automatically

The "Execute script without information" option can be used to define whether or not a corresponding confirmation dialogue is displayed before a script is executed to create a signature. (see 10.1.4)



11.2 Script structure

The corresponding script for calling the signature must be available as a *.TXT file as follows:

```
QTheSignature('ReportFilename.DEF',FctSubNo,FctAddNo)
```

11.2.1 Example of a corresponding script:

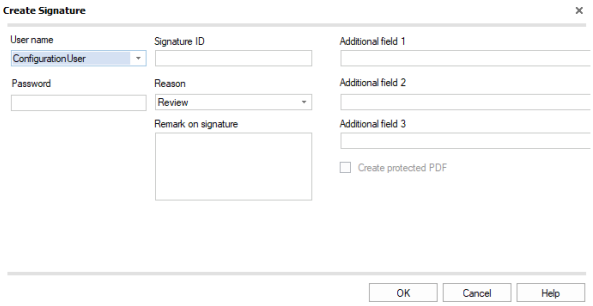
The content of the script file to be executed must look like this:

QTheSignature('ReportFilename.def',FctSubNo,FctAddNo)

QTheSignature('C:\Q-DAS\Share\PLANT\DEFAULT\REPORTS\PV_0010_ValueChart.def',1,1)

- The "PV_0010ValueChart.def" report is used to create the signature (the full path to the report file must be stored).
- FktSubNr: Entry 1 should generally be stored here
- FktZusNr: You can choose between two entries here:

1. The "Create Signature" dialogue can be exited via Cancel

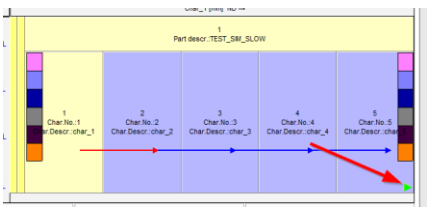


2. The "Create Signature" dialogue cannot be exited via Cancel

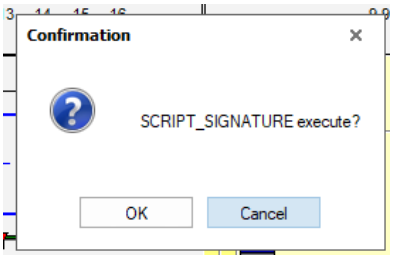
11.3 Procedure during measurement value recording

If the corresponding options are set correctly, the process could look like this.

1. Data set is loaded from the database
2. Measurement value recording in procella is carried out
3. The stored script for creating a signature is executed automatically

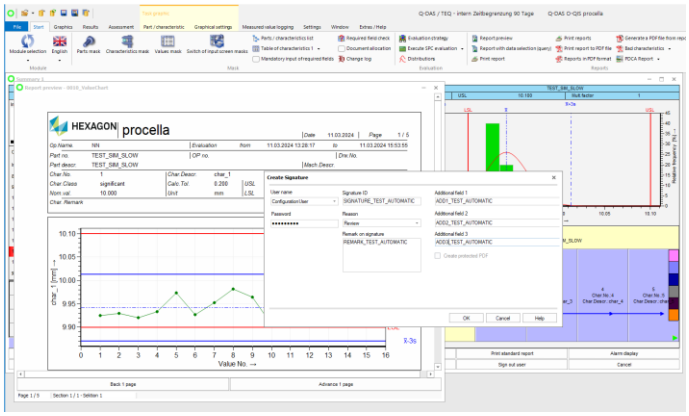


4. Query for executing the script is confirmed with OK

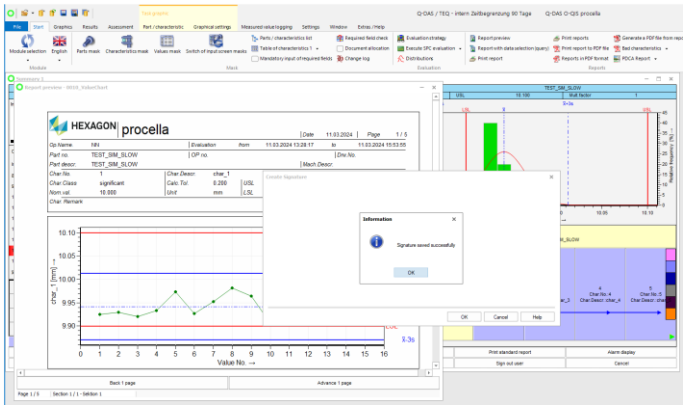


5. The report stored in the script and the "Create signature" dialogue are displayed automatically

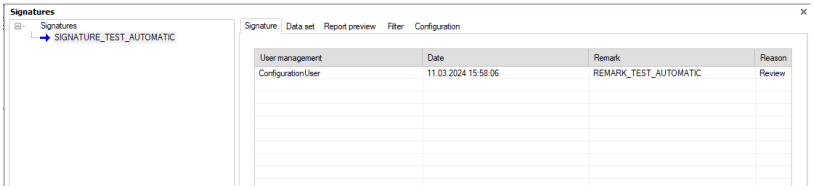
6. The "Create Signature" dialogue can be filled with information and confirmed with OK



7. Signature was successfully created



8. Created signature can be loaded



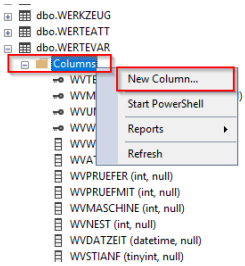
12 Activate write protection for signed measured values

The "WVLOCKED" entry within the data-database is created to protect the signed measured values. This means that the corresponding measured values cannot be subsequently deleted / edited in the data-database used.

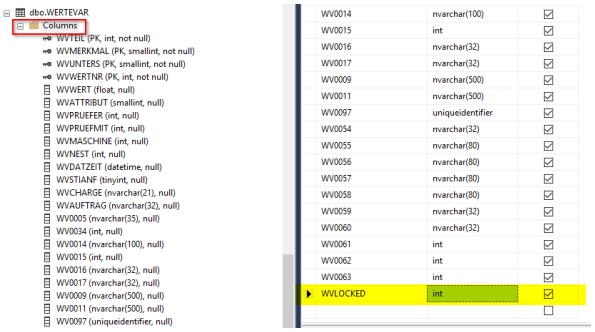
12.1 Entry within the data-database

The corresponding data-database must be adjusted manually as follows:

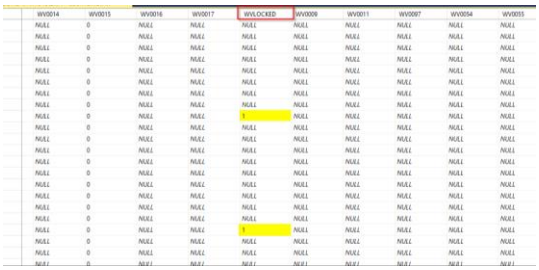
1. Call up the WERTEVAR table
2. Append new column "WVLOCKED



3. Select field data type "int"



4. Measured values that are assigned to a signature are given the entry [1] in the WVLOCKED column



12.2 Saving back after changes

If a signed data set is loaded, the measured values it contains can be edited/deleted, but it is generally not possible to save them back to the database. When saving, you are prompted to save a new*.DFQ file.