

Quick Guide SpecView







1. Introduction

SpecView is stand-alone Serstech application that allow the Indicator user easy access to the measurement done by the Indicator. With SpecView the following can be done:

- Transfer the measurements from the Indicator to the computer.
- Review the measurements on your computer
- Export done measurement to three different format JCAMP, CSV and Panorama
- Test the connection between the Indicator and the computer

1.1 Preparation before first time use on computer

Before the SpecView can be used together with the Indicator, the computer needs to be configured. This configuration is done by the programme (Serstech 100 Indicator Network Setup) that follows with the Indicator in SW 4.1.1 and later. Do as follows:

- 1) Keep the Indicator powered off
- 2) Connect the Indicator to the computer via the supplied USB cable
- 3) Power up the Indicator, let the computer install the necessary drivers
- 4) Log on the Indicator and open the USB connection: (Settings->Administration->USB->Activate USB)
- 5) Run the programme Serstech 100 Indicator Network Setup, answer yes to any question about allowing changes being made to your computer
- 6) Press USB Off

(*Please note* for earlier software versions than 4.1.1 you need to do the following: computer needs to be manually configured to recognise the Indicator as RNDIS device. Serstech has developed two guides to do this manually, one for Windows 10 and one for Windows 7. This is a complicated procedure so we strongly recommend to update to the latest SW version)

Please remember that this configuration needs to be done once for each USB port that are being used, so by using the same USB port to communicate with the Indicator this only needs to be done once. Therefore, Serstech strongly recommend that you have one USB port designated only for communication with the Indicator.





1.2 Test of communication between the Indicator and the Computer

Good practice is to connect the USB cable between the Indicator and the computer before you start the Indicator. When the Indicators log-in screen is active then you should have connection established with the computer. In order to test the connection, start SpecView and use the <Check Indicator Connection> option:







Depending on the connection, SpecView will generate either a success pop-up or an error pop-up

| Get measurements from Indicator | |
|--|---|
| | Get measurements from Indicator |
| ReView Measurement | ReView Measurement |
| Q Information X _ | Warning X |
| Connection establish after: 0.17 s | No Indicator found |
| ок – | ОК |
| (Panorana) (Single file conversion) | (Panorama) (Single file conversion) |
| Open the output folder | Open the output folder |
| Exit | Exit |
| | |

1.3 File format for the measurements on the Indicator

The file format used in the Indicator is the .json format. A very robust and generic file format that can handle huge amount of information in an efficient way. Every measurement in the Indicator will generate the following file types:

- 1) The result file that contains the spectra information and the result of the chosen scan measurement...the extension for result file is <_result.json>
- The substance information file contains the substance information about the substances presented in the result file, the extension for the substance information file is <_result_action_info_db.json>

The complete file name for a measurement file pair is:

- <time_stamp>_<unique sequence>_ result.json
- <time_stamp>_<unique sequence>_ result_action_info_db.json

An example of this is:

- 2016-06-17--08-56-19_5e2043f4-3469-11e6-9214-c550d637f57c_result.json
- 2016-06-17--08-56-19_5e2043f4-3469-11e6-9214c550d637f57c_result_action_info_db.json

SpecView works with the <_result.json> files but the measurement is not complete without both files. All files that are transferred or created in SpecView is stored in the output folder. The output folder is located next to the SpecView.exe file. SpecView will store the files in the following folder structure depending if its file transfer or a spectra export:

- output_folder->output_instrument-><time stamp>
- output_folder->spectra_export-><time stamp>

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The output folder can be accessed via SpecView by pressing <Open the output folder>:







2.0 Transferring measurement from Indicator to computer

In order to transfer all your measurement from your Indicator, please start with connecting your Indicator to the computer via USB cable, start the Indicator, wait until the log-in screen is shown, start SpecView and press <Get measurements from Indicator>.

| Q SpecView | | - | × |
|------------|--|-----|---|
| | Get measurements from Indica | tor | > |
| | ReView Measurement | | |
| | Spectra export | | |
| | Check Indicator Connection | | |
| | Settings (Panorama) (Single file conversion) | | |
| | Open the output folder | | |
| | Exit | | |
| | | | |
| | | | |

This will either result in success pop-up or an error pop-up

| | | | 1 |
|------------------|------------------------------------|-------------------------------------|---|
| om Indicator | | Get measureme | ents from Indicator |
| ment | | ReView M | easurement |
| × | | Q Warning | × |
| to the computer. | | No Indi | cator found |
| ОК | | | ОК |
|) ersion) | | (Pan (Single file | orama) conversion) |
| folder | | Open the d | output folder |
| | | | ixit |
| 15 | | | |
| | ement × to the computer. OK folder | ement to the computer. OK folder | om Indicator ement K OK OK Pan (Single file Open the computer |

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The transferred files can be located on the computer by using <Open the output folder> and locate correct time stamp folder in the output_folder->output_instrument folder.







3.0 Review Measurement

SpecView can review all measurement that has been transferred to the <output folder>. The Indicator doesn't need to be connected to the computer for this operation. In order to Review old measurement, start SpecView and press <ReView Measurement>:



This will open up a file browser that starts in the SpecView folder. So in order to choose a measurement to review please do the following:

-the output_folder->output_instrument->chose the correct time stamp -> chose the correct scan method

In the example below, the result files for Identify scans are viewed in a folder that was created 2016-09-14-11-54-53 (yyyy-mm-dd-h-m-s). This file browser can either show only all <_result.json> files or are all files in the folder. This is chosen in the lower right corner in the browser, marked with red in the figure:

| Q Open | | | | × | | |
|---|--|------------------|------------------------|---------|--|--|
| ← → × ↑ 📴 « resu | \leftarrow \rightarrow \checkmark \uparrow \square « result_viewer \rightarrow output_folder \rightarrow output_instrument \rightarrow 2016-09-14-11-54-53 \rightarrow identify \checkmark 2 | | | | | |
| Organise 👻 New folder | | | BEE | • 🔳 🔞 | | |
| 2016-04 * | Name | Date modified | Туре | Size | | |
| 2016-0≤ | 2016-09-1308-43-19_2195485c-798e-11e6-b5f4-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 31 KB | | |
| 2016-08 | 2016-09-1308-51-10_3940b3a0-798f-11e6-8102-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 30 KB | | |
| 2016-00 | 2016-09-1308-51-46_4efec8da-798f-11e6-b63a-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 32 KB | | |
| 2016-0 | 2016-09-1308-57-46_25703f0c-7990-11e6-8635-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 46 KB | | |
| 2016-05 | 2016-09-1309-53-29_ee1b1c7c-7997-11e6-819c-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 47 KB | | |
| 2016-05 2016-05 2016-05 2016-05 2016-05 2016-05 | 🔐 2016-09-1310-03-33_56573eaa-7999-11e5-bbe2-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 46 KB | | |
| calibr identi ↓ . File nar | r ne: | (` | Result files (*_result | json) 🗸 | | |
| | | | Open | Cancel | | |
| rstech AB (publ.) on Science Park, Scheelevägen 2 3 70 LUND eden | Corporate id no 556713-9893 VAT reg. no SE556713989301 VAT-registered www.serstech.com | | | Į, | | |



If the <all files> option were activated, the double number of files would be shown since all measurement creates two files as mentioned before in this QuickGuide:

| rganise 🔻 | New folder | | | | • 🔳 🕐 |
|-----------|--------------|---|------------------|----------------|-------|
| 1 | 2016-0- ^ | Name | Date modified | Туре | Size |
| | 2016-04 | 2016-09-1308-43-19_2195485c-798e-11e6-b5f4-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 31 KB |
| | 2016-08 | 2016-09-1308-43-19_2195485c-798e-11e6-b5f4-2a746c5de6d1_result_action | 14/09/2016 11:54 | JSON File | 1 KE |
| | 2016-08 | 2016-09-1308-51-10_3940b3a0-798f-11e6-8102-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 30 KE |
| | 2016-09 | 2016-09-1308-51-10_3940b3a0-798f-11e6-8102-2a746c5de6d1_result_action | 14/09/2016 11:54 | JSON File | 1 KB |
| | 2016-05 | 2016-09-1308-51-46_4efec8da-798f-11e6-b63a-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 32 KB |
| | 2016-00 | 2016-09-1308-51-46_4efec8da-798f-11e6-b63a-2a746c5de6d1_result_action | 14/09/2016 11:54 | JSON File | 23 KB |
| | 2010-0: | 2016-09-1308-57-46_25703f0c-7990-11e6-8635-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 46 KB |
| | 2010-05 | 2016-09-1308-57-46_25703f0c-7990-11e6-8635-2a746c5de6d1_result_action | 14/09/2016 11:54 | JSON File | 23 KB |
| | 2016-09 | 2016-09-1309-53-29_ee1b1c7c-7997-11e6-819c-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 47 KB |
| | 2016-09 | 2016-09-1309-53-29_ee1b1c7c-7997-11e6-819c-2a746c5de6d1_result_actio | 14/09/2016 11:54 | JSON File | 23 KE |
| | 2016-05 | 2016-09-1310-03-33_56573eaa-7999-11e6-bbe2-2a746c5de6d1_result.json | 14/09/2016 11:54 | JSON File | 46 KE |
| | 2016-05 | 2016-09-1310-03-33_56573eaa-7999-11e6-bbe2-2a746c5de6d1_result_actio | 14/09/2016 11:54 | JSON File | 23 KB |
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| | 🚺 identi 🗸 ، | ¢ la | | | |
| | | | | 1211000 (1100) | |

Open now the result file you are interested in. There are two options available the default one is to see the spectra plots: The "Raw Data Measurements" is the noisy-unprocessed signal and "Processed Spectra" is the "cleaned-up" signal that later be used in later scan methods.



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The extended review measurement can be activated via setting and activate <Show Scan Result>:



This will add an extra result window that explains the scan result as well showing the spectra:



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4.0 Spectra Export

SpecView support export of measured spectra to three formats:

- JCAMP
- Comma Separated file (CSV)
- Panorama

Export can be done in batch processing (all files in a folder will be converted) or single file conversion. Chose first in the setting options what kind of export that should be done. In the example below is export format JCAMP, Single File Conversion and "." (dot) as decimal divider chosen. The SpecView export support "," and "." as decimal divider.



After the settings is done, press on Spectra Export and chose either the single measurement or the folder that you want to convert and press ok (it depends on settings). All exports will be saved in a time stamp folder under output_folder->spectra_export. One measurement will generate 4 different files:

- foreground (laser on, Rahman signal + noise)
- background (laser off, noise only)
- raw spectra (foreground background)
- processed spectra (cleaned up raw-spectra)





The exported spectra can be located on the computer by using <Open the output folder> and locate correct time stamp folder in the output_folder->spectra_export folder.



