

SPC Content-Plugin

The SPC file format is often used for storing spectroscopic data (like NIR-, MIR-, Raman-, NMR-, Fluorescence- and UV/VIS spectra) and is designed by Thermo Fisher Scientific (originally Galactic Industries).

C. Appel & C. R. Moschner from the [ILV](#) are proud to present a little SPC Content-Plugin (ilv-spc.wdx), which allows [Total Commander](#) (TC) users to manage SPC spectroscopic data in an easy & efficient way.

Name of plugin: ilv-spc.wdx

Last update: 2008-12-02

Questions/comments: SPC-Plugin@cmoschner.de

The software is provided "as is" with NO WARRANTY of any kind & the use of the software is at YOUR OWN RISK!!!

The software is [postcardware](#). So if you use this SPC content plugin please send a postcard to: C. Appel & C. R. Moschner, ILV, Olshausenstrasse 40, 24098 Kiel, Germany

How to install the plugin:

1. Unzip the plugin to a directory of your choice.
2. In Total Commander choose "Configuration -> Options -> Plugins -> Configure Content Plugins"
3. Click on "Add"
4. Choose "ilv-spc.wdx" and click "OK"

How to use the plugin:

You can use the ILV-SPC plugin to structure your "custom columns" or for renaming lots of spectra-files at once with the Multi-Rename-Tool.

Custom columns:

(In Total Commander choose "Configuration -> Options -> custom columns")

Click "New" to create your own custom columns. Then "Add Column" and choose the requested parameter from the ilv_spc plugin list; therefore click on "[+]". Name the configuration of your custom columns and click on "OK".

Multi-Rename-Tool

(In Total Commander choose "Files -> Multi-Rename-Tool")

To rename marked spectra-files you can choose the requested parameter from the ilv_spc plugin list (Plugin button)

Description of parameters

VERY IMPORTANT: There are two different types of information parameters. The first one contains the SPC file format specific data. The second type contains additional information in the Log Text block of the file and is depending on the type of spectrometer/software. Of the endless variants of Log Text data of course only some are included in this ilv_spc plugin.

The ilv_spc plugin performs a fast extraction of the SPC file format specific data but it is very slow while extracting the additional information in the Log Text block. That's why it is a good suggestion to create different custom columns for the file format specific data or for the additional text information, respectively.

SPC file format specific data:

datapoints	Number of datapoints
startx	First datapoint x coordinate
endx	Last datapoint x coordinate
increment	Increment
xtype	description of x type (numeric)
xunit	description of x type (unit [i.e " Nanometers (nm) "])
ytype	description of y type (numeric)
yunit	description of y type (unit [i.e " Absorbance "])
scandate	Scandate (YYYY_MM_DD-hh:mm)
note	Text-note, Comment
source	Source description text
resolution	Resolution description text
method	Method description text
fnsb	Number of subfiles

Log Text Group 1 (i.e. IR & NIR Data Files):

RES	Resolution
NAME	Data file name
MEMO	Comment/Description
COMMENT	Comment/Description
USER	Name of User/Analyst
MODEL	Name of Instrument
SCANS	Number of co-added scans
GAIN	Detector Gain Factor
SPEED	Scan speed / Velocity
VELOCITY	Scan speed / Velocity
BSPLITTER	Beam Splitter name
APOD	Apodization function (ie. "Strong" Norton-Beer)
DET	Detector type name
PHASE	Phase correction type name (i.e "Magnitude")
SCANSBG	Number of co-added scans in background file
LWN	Laser Wavenumber (usually ~15799.7 cm ⁻¹)
JSTOP	J-Stop aperture width
BSTOP	B-Stop aperture width
SRC	Source type name
PHASEPTS	Number of interferogram points used for phase correction
NODE	Identifies the instrument connection node number

Log Text Group 2 (i.e Polytec PSS):

PSS-Device	PSS spectrometer type
Serial Device	Serial Number of Device
Serial Polychromator	Serial Number of Polychromator
Serial Detector	Serial Number of Detector
Device Version	PSS Device Driver Version
Hardware Version	Hardware Driver Version
Firmware Version	Firmware Version
Timestamp	Timestamp
Machine	Machine
User-PSS	User of PSS spectrometer
Scan Mode	Scan Mode (i.e. "Online")
Integration Time	Integration Time
Accumulations	Accumulations
Wavelength Mapping	Wavelength Mapping
Dark Spectrum Subtraction	Dark Spectrum Subtraction
Resolution AD-Converter	Resolution AD-Converter

Log Text Group 3 (i.e Zeiss Corona):

INTEGTIME	Integration Time
AVERAGE	Number of co-added scans used for average
ORIGIN	Origin (i.e. "CORA Version 2.0")
MODULE_NR	Module number
SERIAL	Serial number
LOCATION	Location
OPERATOR	Operator

Log Text Group 4 (i.e Aspect Plus):

ORIGIN	Origin (i.e. "Aspect Plus")
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Log Text Group 5 (i.e Raman, some IR):

MODEL2	Name of Instrument
SCANS2	Number of co-added scans
SCANSBG2	Number of co-added scans in background file
LWN2	Laser Wavenumber (usually ~15799.7 cm ⁻¹)
RAMANFREQ	Raman Laser Frequency
PHASE2	Phase correction type name (i.e "Magnitude")
DET2	Detector type name
BSPLITTER2	Beam Splitter name
SPEED2	Scan speed / Velocity
GAIN2 Detector	Gain Factor
HIGHPASS	High Pass Filter Cutoff
LOWPASS	Low Pass Filter Cutoff