

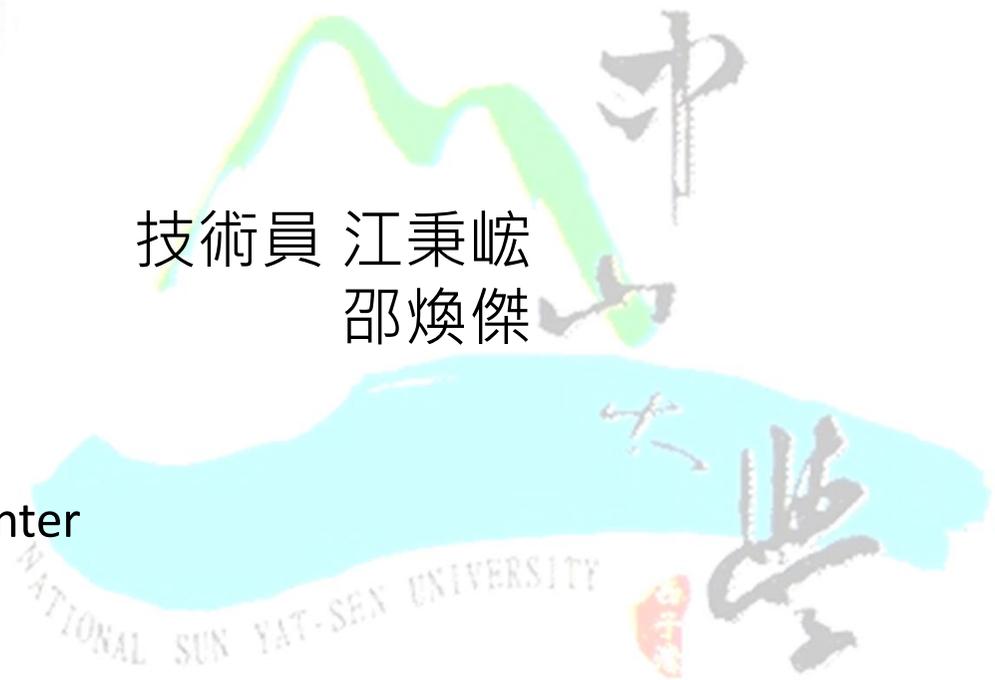


新海研3號貴儀中心

Marine Exploration instrument Center
New Ocean Researcher 3 (NOR3)

CTD轉檔說明

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轉檔軟體

- <https://www.seabird.com/software-updates>
- 選擇SBE Data Processing，下載並安裝

All Software

Title	Version	Date	Manual	Windows	MacOS
SeatermV2	2.8.0	2018-12-04		SeatermV2.8.0-b40.exe	
Seasoft V2	2.4.0	2018-12-04		SeasoftV2.4.0-b40.exe	
UCI	2.0.3	2019-11-19		UCI-2.0.3-b838-x86	UCI-2.0.3-835-macos-x86_64
SeaFETCom	2.0.3	2017-09-28		SeaFETCom-2.0.3-b115-x86.exe	SeaFETCom-2.0.3-120-macos-x86_64.pkg
Deployment Endurance Calculator	1.7.1	2017-07-26		DeploymentEnduranceCalcV1.7.1-b19.exe	
Seasave V7	7.26.7	2017-07-26		SeasaveV7.26.7-b19.exe	
SBE Data Processing	7.26.7	2017-07-26		SBEDataProcessing_Win32_V7.26.7-b19.exe	
Cycle Host	1.08	2016-05-12		CycleHost1.08_installer.exe.zip	
ProSoft	7.7.19	2016-04-12		ProSoft7.7.19-b2_Setup.exe	



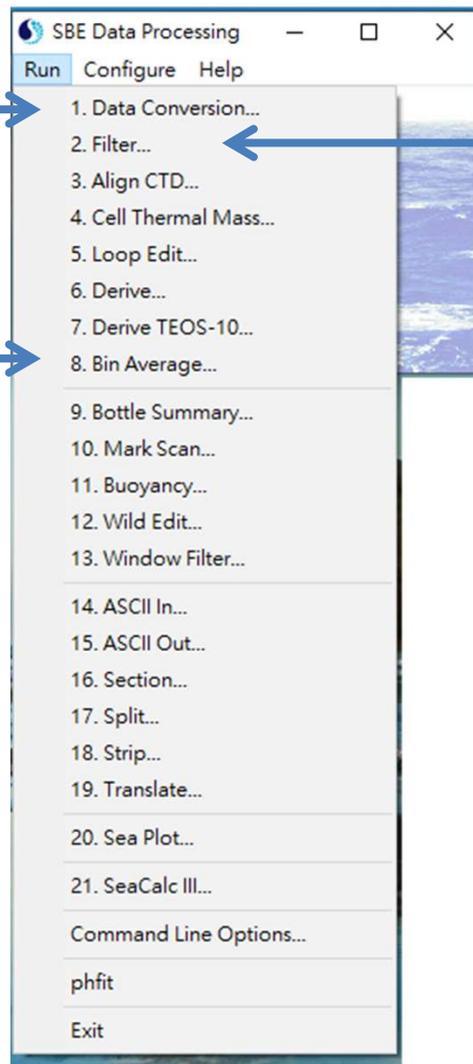
程式介紹

Data Conversion

初次轉檔，將CTD原始資料(.hex)轉換成Excel可以讀取的.cnv格式

Bin Average

可將已轉檔的CTD資料(.cnv)進行每米或每秒平均



Filter

過濾轉出來的CTD資料(.cnv)，程式會自動將突發事件或電子訊號跳動的資料刪除

*若確定該站CTD資料沒異常，此步驟可跳過



轉檔前置作業

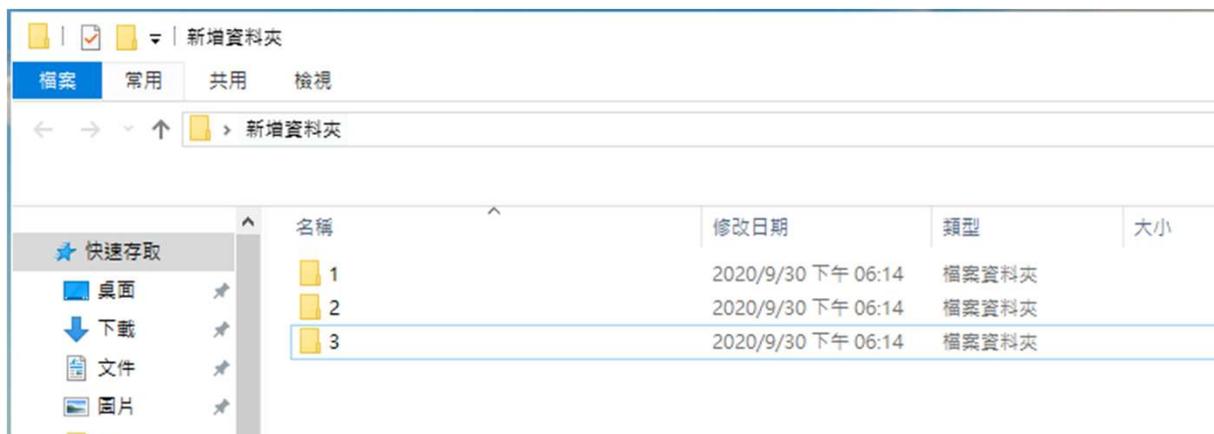
- 確認是否有拿到正確的檔案

 K1-2.bl	2020/5/22 下午 07:50	BL 檔案	1 KB
 K1-2	2020/5/22 下午 07:50	ACDSee Pro 2.0 ...	1 KB
 K1-2.hex	2020/5/22 下午 07:50	HEX 檔案	17,731 KB
 K1-2	2020/5/22 下午 07:50	Sea-Bird Instrum...	8 KB

← 該站位水文資料 (pointing to K1-2.hex)

← 該站位CTD設定檔 (pointing to K1-2)

- 先建立三個資料夾(避免後續轉檔時覆蓋到上一步驟轉完的檔案)





Data Conversion

1. 選擇CTD設定檔(.xmlcon)

同一個航次可以選同一個設定檔即可，除非有換探針

2. 選擇水文資料(.hex)

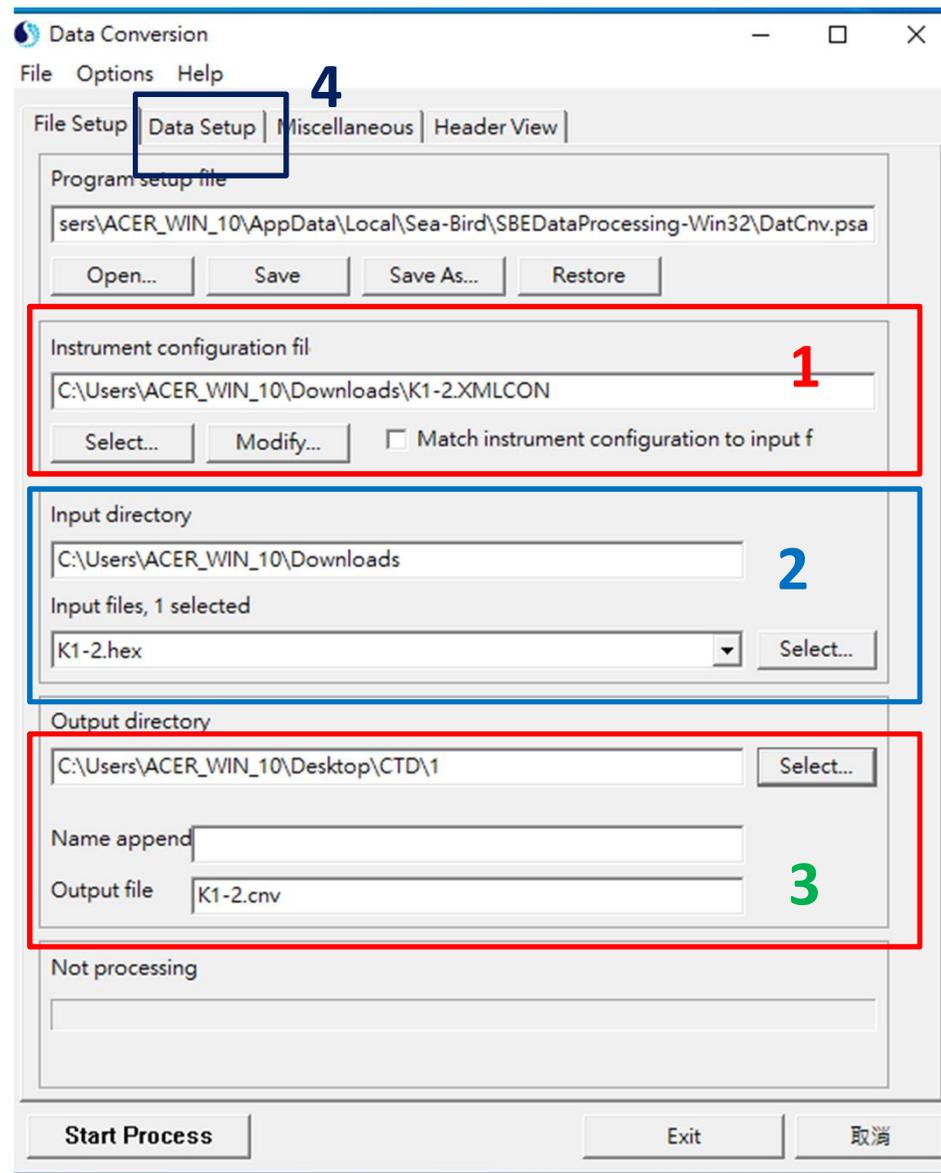
可以一次處理很多不同站位的資料，本次僅示範一筆

3. 選擇轉檔後資料輸出位置

放在已經建立好的資料夾 1，避免被其他轉好的檔案覆蓋

4. 選擇要輸出的資料內容

詳情見下一頁





Data Conversion

Data Conversion

File Options Help

File Setup Data Setup Miscellaneous Header View

Process scans to end of file

Begin scans to skip over

Scans to process

Output format

Convert data from

Create file types

Source of scan range data

Scan range offset [s]

Scan range duration [s]

Merge separate header file

Select Output Variables...

Source for start time in output .cnv header

Instrument's time stamp System UTC

NMEA time Upload time

Prompt for start time and/or n

Start Process Exit 取消

Select Output Variables

Seq. #	Variable Name [unit]
1	Time, System [seconds]
2	Latitude [deg]
3	Longitude [deg]
4	Depth [salt water, m]
5	Temperature [ITS-90, deg C]
6	Salinity, Practical [PSU]
7	Oxygen, SBE 43 [mg/l]
8	Fluorescence, Chelsea Aqua 3 Chl Con [ug/l]
9	Beam Transmission, Chelsea/Seatech [%]
10	
11	
12	
13	
14	
15	

Add Change Delete Insert Delete All Data...

- Beam Transmission, Chelsea/Seatech [%]
- Bottle Position in Carousel
- Bottles Fired
- Bottom Contact
- Byte Count
- Conductivity
- CPAR/Corrected Irradiance [%]
- Density
- Depth
- Descent Rate
- Fluorescence, Chelsea Aqua 3 Chl Con [ug/l]
- Frequency Channel
- Latitude [deg]
- Longitude [deg]
- Modulo Error Count
- Modulo Word
- New Position
- Nitrogen Saturation

Shrink All Expand All Shrink Expand

OK Cancel

1 選擇想轉出來的參數

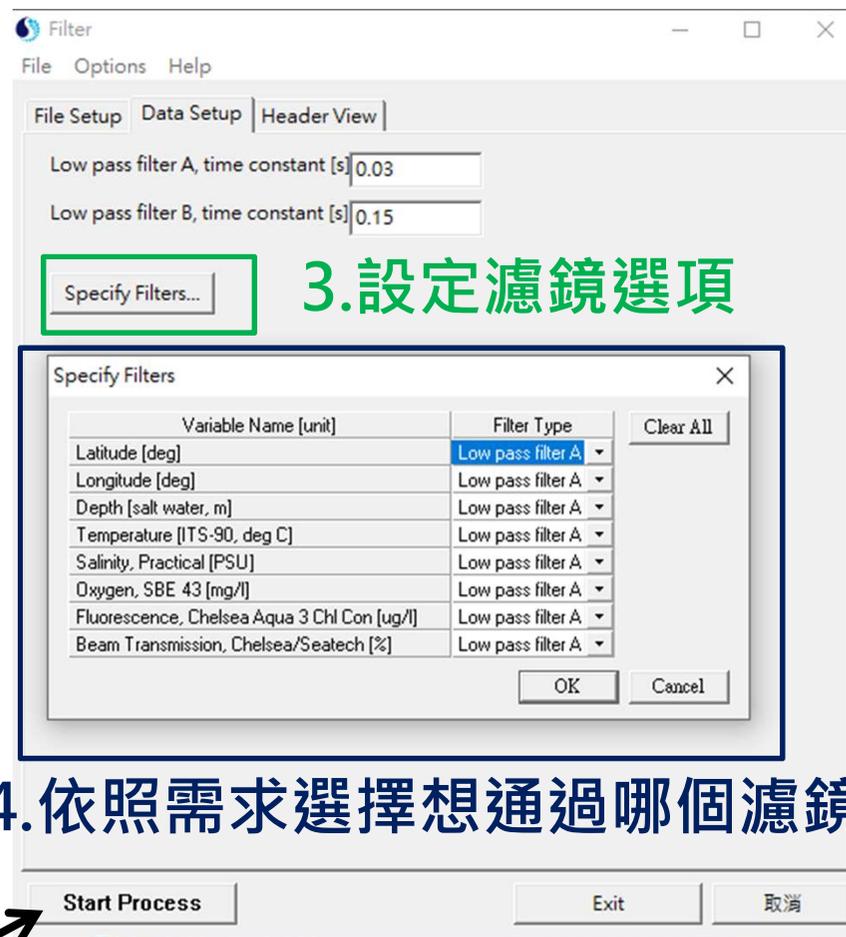
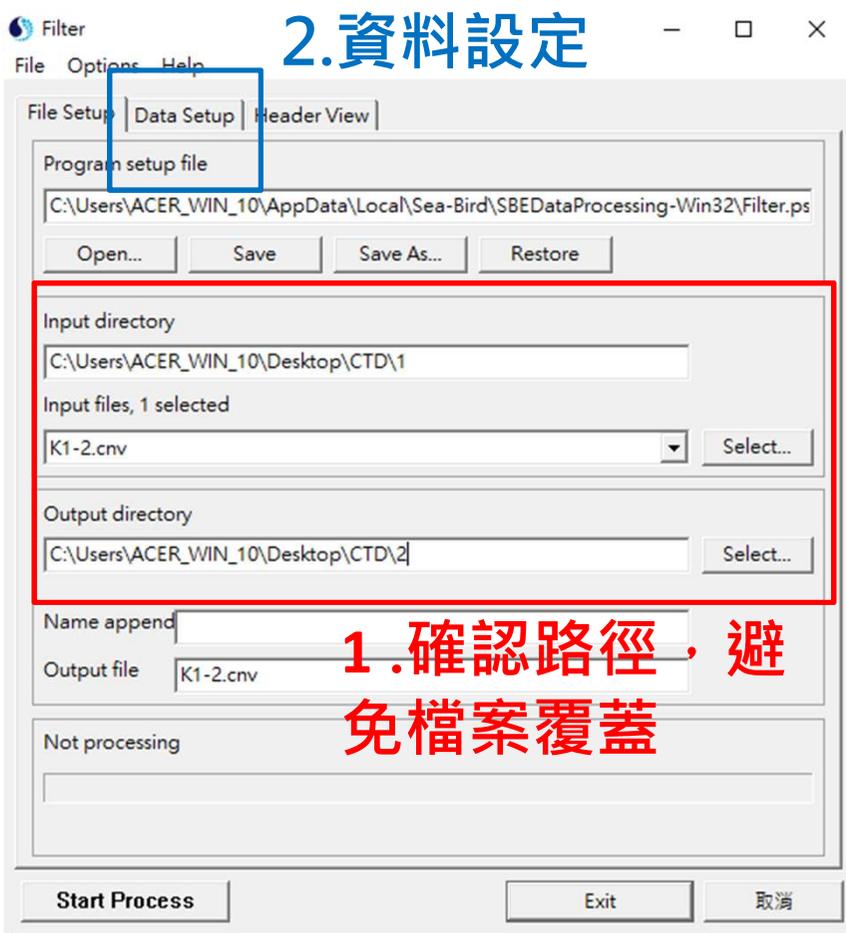
2 建議需要轉檔出來基本參數有：時間、經緯度、深度、溫度、鹽度、溶氧、螢光、穿透度

3 確認無誤後開始轉檔



Filter

*若確認本次CTD資料無異常資料，可跳過本步驟



5. 開始轉檔



Bin Average

2. 資料設定

Bin Average

File Options Help

File Setup | Data Setup | Header View

Program setup file

Users\ACER_WIN_10\AppData\Local\Sea-Bird\SBEDataProcessing-Win32\BinAvg.psa

Open Save Save As Restore

Input directory

C:\Users\ACER_WIN_10\Desktop\CTD\2

Input files, 1 selected

K1-2.cnv Select...

Output directory

C:\Users\ACER_WIN_10\Desktop\CTD\3 Select...

Name append

Output file K1-2.cnv

Not processing

Start Process Exit 取消

1. 確認路徑，避免檔案覆蓋

Bin Average

File Options Help

File Setup | Data Setup | Header View

Bin type Depth

Bin size 1

Include number of scans per bin

Exclude scans marked bad

Begin scans to skip over 0

End scans to omit 0

Min scans per bin 1

Max scans per bin 2147483647

Cast to process Upcast and downca: ▾

Include surface bin

Surface bin minimum value 0

Surface bin maximum value 0

Surface bin value 0

Start Process Exit 取消

3. 本範例為，依深度每米平均出一筆數據

4. 開始轉檔

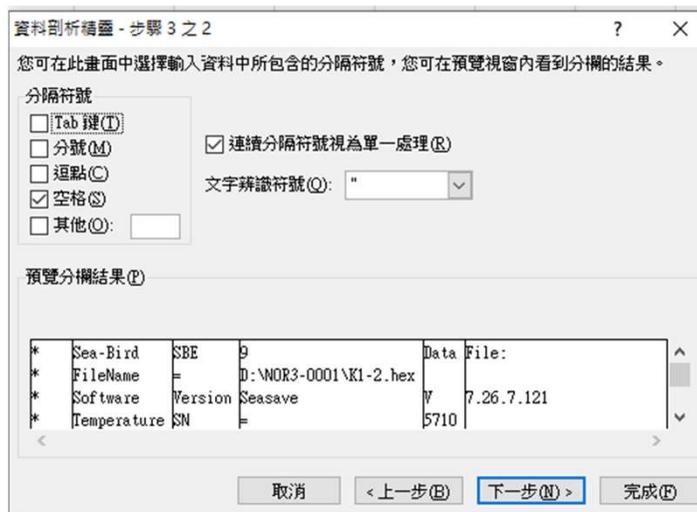


Excel 資料處理

3. 選擇以“ 分隔符號 ”剖析資料，並選擇下一步



4. 分隔符號選擇“ 空格 ”，並選擇完成





Excel 資料處理

6. 如圖，上步驟方框中的訊息可對應到下面所解出來資料的參數以及單位

	A	B	C	D	E	F	G	H	I	J	K
238	#	binavg									
239	#	binavg		2.15F							
240	#	binavg	=	no,	min	=	0.000,	max	=	0.000,	value
241	#	file	=	asr							
242	*END*										
243		1.59E+09	20.5038	120.3211	4	27.1592	36.8097	5.1901	0.0089	96.4751	0.00E+00
244		1.59E+09	20.50437	120.3197	5	26.7787	31.7232	4.5982	0.0114	96.3204	0.00E+00
245		1.59E+09	20.50433	120.3198	6	26.917	34.0205	5.0952	0.0083	96.3567	0.00E+00
246		1.59E+09	20.50436	120.3197	7	26.9493	34.0824	5.2774	0.0119	96.365	0.00E+00
247		1.59E+09	20.50436	120.3197	8	26.845	31.8876	5.1219	0.0127	96.3526	0.00E+00
248		1.59E+09	20.50436	120.3197	9	26.788	34.2306	6.1931	0.0117	96.2975	0.00E+00
249		1.59E+09	20.50438	120.3197	10	26.8742	34.118	5.1423	0.0189	96.3077	0.00E+00
250		1.59E+09	20.50439	120.3197	11	26.9079	34.09	4.8312	0.0175	96.2651	0.00E+00
251		1.59E+09	20.5044	120.3197	12	26.9015	34.0911	4.6603	0.02	96.2895	0.00E+00
252		1.59E+09	20.5044	120.3196	13	26.902	34.0857	4.7756	0.0192	96.2866	0.00E+00
253		1.59E+09	20.5044	120.3196	14	26.8978	34.0838	4.8206	0.0263	96.2887	0.00E+00
254		1.59E+09	20.5044	120.3196	15	26.9000	34.0846	4.6524	0.0252	96.2906	0.00E+00