# CruisePack

User Manual

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# Overview

The NCEI CruisePack data packager makes packaging cruise-based data for submission to NCEI quick and easy.

To begin, the user enters basic cruise and instrument details, and sets the paths to instrument data files. The packager copies all files to the destination location, creating a data submission package in the Library of Congress BagIt bag format. This master package contains a BagIt structured package for each instrument along with JSON formatted metadata information for the instrument and cruise, packager log, user included documentation files and a manifest file containing MD5 checksums.

CruisePack uses a series of SQLite files to store user entered information on cruises/packages as well as chief scientists, projects and sponsoring organizations. These files are used to populate pull-down menus that simplify data entry and ensure consistency. CruisePack is fairly robust in handling errors but if it does crash, it can be re-launched and packaging resumes with little loss of time. Though designed to package files from a server/desktop system onto an external hard drive, CruisePack can also be used to package data already on the external drive (see "Packaging Data in Place") or package data onto another system for electronic transfer to NCEI. CruisePack does not transfer files to NCEI as part of its operation.

CruisePack is optimized for fast operation, but packaging data is a time intensive process, especially for large, terabyte plus, datasets. It may take 24 hours or more for these larger packages. It is best to use a dedicated machine to run the packager.

# Words of Caution

The packager has some limitations to keep in mind.

- 1. All data and the created metadata files must fit on the destination drive. CruisePack does not perform a space check before starting and will crash if the destination drive fills before packaging is complete.
- 2. Be careful with the Cruise ID and Segment or Leg name combination. Though it will warn you, the Packager will overwrite existing data on the destination drive if you mistakenly use the same cruise ID segment/leg combination more than once on the same destination drive.
- 3. CruisePack uses an underscore "\_" to combine the cruise ID and segment and leg information into a unique package name. Using underscores elsewhere in the cruise ID or segment/leg fields can cause issue on ingest and should be avoided if possible.

# **User Interface Details**

## **Main Controls**

CruisePack v.3.2.0-rc			-		×
Package People / Organizations Cruise Inform	nation Omics	Datasets			
Cruise ID	Segment or Le	g			
Test-EX				Test-EX	•
Select existing record to update or enter new cruise	ID. Enter a seg	ment/leg name if crea	ting multiple pac	kages per cri	uise.
Destination (package directory will be created auto	matically)				
C:/Users/Chuck/Desktop				Selec	t Directory
Ship		Departure Port and	Date (yyyy-mon-	dd)	,
Okeanos Explorer (EX)	•	Akureyri, IS		• 2020-	Jan-06 🗸
IHO Sea Area		Arrival Port and Date	e (yyyy-mon-dd)		
Celtic Sea	•	Al Manamah, BH		• 2020-	Mar-06 🗸
Projects					
Project number one					-
Project number two					<u> </u>
+	Add Additional Project Menu				
		Default	: Public Release D	Date 2020-	Nov-OE 🗸
Hide Records     Import/Export	Clear Form	Stop Packaging	Save For Later	r Pack	age Data
Packaging completed					25 of 25

**Hide Records:** Opens package record show/hide dialog box (below). This dialog allows you to easily control the display of previous packages in the "Select Existing Record" pull-down menu. Records with "show" selected are displayed in the pull-down menu.

Show or Hi	de Package Recor	—		×	
Package N	ame			ID	^
Show EX2102				2	
Show EX2120				1	
Show Test				4	
Show Test-EX				5	~
Save					

**Import/Export:** Opens the import / export dialog box (see later section).

Clear Form: Clears all form fields on all tabs.

**Stop Packaging:** Stops a currently running packaging job. This button is only active when CruisePack is actively packaging data. Click *Package Data* to resume packaging. **Save For Later:** Saves entered data to the SQLite packageData.sqlite file for later use. This button is deactivated while CruisePack is actively packaging data since any changes to user entered information would not be reflected in the package. To make changes once packaging has begun, slick *Stop Packaging*, make the needed changes, and click *Save for Later* or *Package Data* to save the changes or restart the packaging process.

**Package Data:** Saves data to packageData.sqlite, creates folder structure in destination directory, copies files into bag, and generates the metadata and the bag manifest files. This button is deactivated while CruisePack is actively packaging data.

Status Bar (text line below these buttons): Displays messages during processing so you know what step CruisePack is working on.

**Close (window close):** Closes CruisePack. Dialogs will warn user if packaging is currently in progress and prompt the user to save changes before closing.

Open the user manual (requires a pdf reading application on your machine). If manual fails to open, The PDF file is located in CruisePack's /help directory and can be opened manually from there.

## Package Tab

CruisePack v.3.2.0-rc	-	
Package People / Organizations Cruise Information Omics Datase	its	
Cruise ID Segment or Leg		
		Select Existing Rec +
Select existing record to update or enter new cruise ID. Enter a segment/lee		
Destination (package directory will be created automatically)		
		Select Directory
	ure Port and Date (yyyy-mon-o	
Select Ship Name Select	Departure Port	• 2021-Mar-01 ∨
IHO Sea Area Arrival	Port and Date (yyyy-mon-dd)	
Select Sea Name Select	Arrival Port	• 2021-Mar-01 ∨
Projects		
Enter project name here or choose from drop-down menu		<u>•</u>
Add Additional Project 1	1enu	
	Default Public Release D	Date 2021-Mar-01 V
Hide Records Import/Export Clear Form Stop	Packaging Save For Later	r Package Data
Metadata saved.		

**Cruise ID:** Name the data will be archived under. Normally, this is the cruise ID (e.g., DY1103). To prevent problems and maintain consistency, the Cruise ID should not contain spaces or underscores.

**Segment or Leg:** This is a subset designator used to break cruise data into smaller submission packages. This value is used in conjunction with the cruise ID to create the package ID. For example, if DY1103 is entered as the Cruise ID and Leg1 is entered under Segment or Leg, the package ID is DY1103\_Leg1. Use it to create multiple packages of data that will be archived under the common cruise ID. For example, packages DY1103\_Leg1 and DY1103\_Leg2 will both be archived under DY1103 If you want legs archived separately, use a Cruise ID such as DY1103Leg1 and leave the Segment or Leg field blank.

**Select Existing Record:** This pull-down list is populated with all package information stored in the cruiseData.sqlite file. Selecting a record will populate CruisePack's fields with data from that stored package. You can use this feature to pre-populate a new package with common data from a previous package. *CAUTION!* Remember to change the Cruise ID and/or Segment or Leg value. When saving for the first time a *New or Update* warning dialog box will appear (See page 13). Click *Create New* to create a new package while *Update* will update the existing package's information.

**Destination:** Set the destination path for the main package using the *Select Directory* button. CruisePack will create a directory with the package ID (Cruise ID\_Segment or Leg) as the name. **Ship:** Select survey vessel from the pull-down menu. If your ship is not in the list, select *Unlisted Ship* and contact your NCEI contact to have your ship added to the list. Ships can be hidden from the list by modifying the sourceData.sqlite file (see "Modifying Menus").

**IHO Sea Area:** Select the most appropriate IHO Sea Area for data in the package. The sea areas listed in the pull-down menu are a subset of the IHO names contained in the sourceData.sqlite file. See "Modifying Menus" to add additional areas to the pull-down menu.

**Departure and Arrival Information:** Select departure and arrival port, and the associated dates. Set the ports and dates to represent the entire cruise, even if subdividing data for packaging (i.e. packaging by leg). Only use cruise leg ports and dates if you are archiving data as separate legs (i.e. your cruise ID includes the leg designation). The port list contains US and Canadian ports

from the UNOLS maintained port list. It does not contain every port so select the closest one from the list. International ports are included in the sourceData.sqlite file. See "Modifying Menus" to enable additional ports in the pull-down menu.

**Projects:** Project(s) this cruise is part of: The pull-down list is populated with previously saved projects, if this is a new project just enter the name where it says *Select project*. This project will be added to the list after clicking the *Save for Later* button. An unlimited number of projects can be specified by clicking the *Add Project* button. To remove unwanted projects, set pull-down to "Select project" and click, *Save for Later*.

**Default Public Release Date:** the public release date for each dataset can be specified individually on the Datasets tab. This date is the default date entered when new dataset tabs are created and can be used to set a single date for all datasets.

# **People / Organizations Tab**

	Cruise Information   Omics   Datasets	
Scientists	Source Organizations	Funding Organizations
Select Scientist	Select Source Organization	Select Funding Organization
<ul> <li>Add Scientist</li> </ul>	Add Source Organization	Add Funding Organization
		Metadata Author
	Create/Edit Organizations	Select Metadata Author
Create/Edit People		

**Scientist(s):** Select a scientist for the cruise from the pull-down list. Click on the *Add Scientist* button to add additional scientists. Use the *Create/Edit People* interface to add new people or edit existing entries (See "Editing People and Organizations"). To remove a person, set the entry to the default option "Select Scientist" and click "Save for Later". The entry will be removed upon saving.

**Sponsor Organization(s):** Select a sponsoring organization for the cruise from the pull-down list. Click on the *Add Sponsor Organization* button to add additional organizations. Use the *Create/Edit Organizations* interface to add new organization entries or edit existing entries (See "Editing People and Organizations"). To remove an organization, set the entry to the default option "Select sponsor organization" and click "Save for Later". The entry will be removed upon saving.

**Funding Organizations:** Select the organization funding the cruise from the pull-down list. Click on the *Add Funding Organization* button to add additional organizations. Use the *Create/Edit Organizations* interface to add new organization entries or edit existing entries (See "Editing People and Organizations"). Remove entries the same way as sponsors.

**Metadata Author:** This should be the person packaging the data. The pull-down menu is populated from the same list as the Scientists pull-down menus.

# **Cruise Information Tab**

CruisePack v.3.2.0-rc	—	×
Package   People / Organizations   Cruise Information   Omics   Datasets   Cruise Title		
Cruise Purpose		
Cruise Description (overview of cruise for cruise-level metadata)		
Documents Path           Import/Export           Clear Form           Stop Packaging	ave For Later	Directory
Metadata saved.		

Information entered on this page is used in the cruise-level metadata record and can typically be copied from your cruise instruction documentation. If cruise-level metadata is being provided by other means, these values can be left blank.

**Documents Path:** Enter the path to a directory containing documentation files you want included in the data package. CruisePack copies all the files and subdirectories contained in this directory.

## **Omics Information Tab**

CruisePack v.3.2.0	-		×
Package People / Organizations Cruise Information Omics Datasets			
Omics sampling conducted? Yes No Select Omics POC	-	Create/Ec	lit People
Sample Tracking Sheet Select File NCBI BioProject	Accession:		
Sampling Types			
Water Soil/Sediment Organic Tissue			
Expected Analyses			
Genomics Transcriptomics Proteomics Metabolomic	s 🗌 Met	agenomics	
	_	-	
Metatranscriptomics Epigenetics Microbiome Other			
Additional Omics Sampling Information			
Hide Records Import/Export Clear Form Stop Packaging S	Save For Late	Packa	ge Data

Omics Sampling Conducted: Was any sampling done to support Omics research?

**Omics POC:** Enter the best point of contact for the omics sampling.

Sampling Tracking Sheet: Enter the path to the file used to track the omics sampling.

NCBI BioProject Accession: Enter the NCBI BioProject Accession if one exists.

Sampling Types & Expected Analysis: Check all appropriate boxes.

Additional Omics Sampling Information: Please provide the additional information on the omics sampling program and expected analysis that will be performed.

#### **Datasets Tab**

🛯 CruisePack v	.3.2.0-rc		—		×
Package   People / O	rganizations Cruise Informa	tion Omics Datasets			
	4	Add Additional Dataset			
Select Data Type	<ul> <li>Select Instrument</li> </ul>	<u>-</u> Pi	ublic Release Date	2021-Mar-0:	· · 🗶 ^
Path to Data Files		Select Directory	C Raw C Pro	ocessed 🔿	Products
> [		Add Data Comment			j
					~
Hide Records	Import/Export 0	Clear Form   Stop Packad	ging Save For	Later	Package Data
Hide Records					

CruisePack launches with one dataset widget loaded by default. Additional dataset widgets can be added by clicking the *Add additional Dataset* button. CruisePack supports packaging an unlimited number of datasets from the same cruise.

#### **General Data Widget**

Select Data Type	Select Instrument	Public Release Date     1/2/19     Image: Control of the second s		
Instrument Files Path	Select Dire	ectory Raw Processed Products		
Add Data Comment				

**Select Data Type:** Select the data type to package. The selection of data type will then populate the instrument pull-down with instruments associated with that type of data. CAUTION: Changing data type will delete all information entered in an existing widget, select "Other" if you have data of a type not listed.

**Select Instrument:** Once the data type is selected, the instrument list is populated with instruments associated with that datatype. If you have data from an instrument not in the list, select "Unlisted Instrument" and contact NCEI to get your instrument added to the list.

**Public Release Date:** Specify the date when the data can be made available to the public. This value is inherited from the default public release date but can be modified for each dataset here.

**Instrument Files Path:** Specify the path to the data files from this instrument. The path can be hand entered or set using the *Select Directory* button.

**Raw** / **Processed** / **Products:** CruisePack handles files differently if they are raw, processed or are data products. This setting is critical and you will be prompted to set the value if you forget.

**Data Comment:** Click the Add Data Comment button to open the data comment window. Enter any information that helps explain the data or issues encountered during instrument operation. These comments are added to the metadata files and are crucial for long-term data usefulness.

#### Water Column Sonar Data Widget

Water Column Sonar Select Instrument	Public Release Date 2020-Jan-15			
Path to Data Files	Select Directory O Raw O Processed O Products			
► Add Data	Comment			
Calibration State Unknown	Calibration Date 2000-Jan-01			
Calibration Report Path	Select Calibration Report			
Don't have a calibration report? Click to download the calibration Excel template				
Calibration Data/Support Files Path	Select Directory			

The water column sonar data (WCSD) widget is a custom widget with additional fields needed to adequately document WCSD. In addition to the general data widget fields it also has:

**Calibration State:** Select the calibration state that best describes the situation during data collection.

Calibration Date: The date of the last calibration.

**Calibration Report Path:** Select the path to the instrument calibration report. If you do not have a calibration report, please click the button directly below to download an Excel template file that you can use to provide carburation information.

**Calibration Files Path:** The path to the calibration files and other calibration information you have from the last calibration procedure.

#### Singlebeam Bathymetry Data Widget

Singlebeam Bathymetry	Select Instrument	\$	Public Release Date 2020-Jan-17
Path to Data Files		Select	t Directory ORaw OProcessed OProducts
	Add Data Comment		
Vertical Datum Unknown 🗘	Observation Rate (obs/min)		Sound Velocity (m/s)

The singlebeam bathymetry data widget is a custom widget with additional fields needed to adequately document singlebeam data. In addition to the general data widget fields it also has:

Vertical Datum: The vertical datum for the data.

Observation Rate: The observation rate in observations/minute.

Sound Velocity: Sound velocity (meters/second) used in calculations.

#### **Gravity Data Widget**

Gravity Select Instrument	♀ Public Release Date 2020-Jan-17 ♀ ♀
Path to Data Files	Select Directory O Raw O Processed O Products
Add Data Comment	
Correction Model Unknown	Observation Rate (obs/min)
Departure Tie (milligal) Arrival Tie (milligal)	Drift Rate per day

The gravity data widget is a custom widget with additional fields needed to adequately document gravity data. In addition to the general data widget fields it also has:

**Correction Model:** The gravitational correction model used.

**Observation Rate:** The observation rate in observations/minute.

**Departure Tie:** Tie in value from cruise departure in milligals.

Arrival Tie: Tie in value when returning to port in milligals.

Drift Rate: Instrument drift rate during cruise.

#### **Magnetics Data Widget**

Magnetics	Select Instrument  Public Release Date 2020-Jan-16							
Path to Data Files	Select Directory O Raw O Processed O Products							
Add Data Comment								
Correction Model Unknown	Sample rate (obs/min)							
Tow Distance (m)	Sensor Depth (m)							

The magnetics data widget is a custom widget with additional fields needed to adequately document magnetic data. In addition to the general data widget fields it also has:

**Correction Model:** The magnetic field correction model used.

Sample Rate: The sampling rate in observations/minute.

**Tow Distance:** Distance magnetometer was towed behind ship. **Sensor Depth:** Sensor depth below surface.

#### **Navigation Data Widget**

Navigation	Select Instrument	Public Release Date 2020-Jan-16      X
Path to Data Files	Sel	elect Directory Raw Processed Products
•	Add Data Comment	
Navigation Datum	Unknown	0

The navigation data widget is a custom widget with additional fields needed to adequately document navigation data. In addition to the general data widget fields it also has:

Navigation Datum: Datum used.

# **Editing People, Organizations and Projects**

People	e Editor	—		×
		enter new person's	info below	~
Name (First L	ast)			
Position		Organization		
Street				
City		State/Admini	strative Area	
Postal Code	Country USA	Phone		
Email		ORCID ID		_
UUID (autom	atically generated v	vhen you click save)		
		<u> </u>		
Display in pul	II-down lists: 🔘	Yes No	Clear	Save

The *Create/Edit People* and *Create/Edit Organizations* buttons in the People/Organizations tab open similar dialog boxes. These dialog boxes are used to create new entries and edit existing entries. Complete deletion of an entry requires an external SQLite editor (see "Managing Menus"). However, the *Display in pulldown lists* option can hide a person or organization in the pull-down menus on the People/Organizations Tab.

**Creating a new entry:** Enter the new entry's name and contact information. Leave the UUID field blank. A new UUID will be assigned when you click *Save*.

**Edit existing person:** Select person or organization from pull-down list to edit existing entry. Click *Save* before exiting.

# Import / Export

CruisePack has the ability to export a copy of its metadata JSON file and import metadata from a properly formatted Excel file. Import/export dialog box is accessed through the Import/Export button.



# Export

Clicking *Export JSON* open file selection dialog that allows you to save a CruisePack packagelevel json metadata file equivalent to that created during packaging.

# **Import Excel Sheet**

CruisePack can import extensive metadata for multiple cruises from a properly formatted Excel spreadsheet. A template Excel file can be downloaded through CruisePack or copied from the CruisePack directory's /help directory. All scientist organization and instrument names must match names already in CruisePack. Multiple entries should be separated by semicolons with no spaces.

Import Excel Spreads –		×
Import cruise metadata using an Excel spreadsheet. The file must be in the proper format. Download template if needed.	Download	l Template
Path to Excel Spreadsheet		
C:/Users/Chuck/Desktop/Nancy_Foster.xlsx	Selec	t Excel File
Destination (package directory will be created automa	tically)	
C:/Users/Chuck/Desktop	Selec	t Directory
Ari Friedlaender		·
Import Records		

Download Template: Click to download Excel template.

Select Excel File: Select path to Excel import file.

**Select Destination Directory:** This is the destination path for data packages. If can be left blank if unknown of if you do not want to specify a path as part of the metadata import.

**Select Metadata Author:** Select person packaging the data / person who created import file. This person is only listed internally as a point of contact. The information is not included in any

public facing documents. The person must already be in CruisePack's listing of people before importing metadata



After a successful import, imported metadata is available from the *Select existing Record* pulldown menu. Any errors parsing the Excel file are displayed. Generally, errors do not prevent the file from importing but some of the metadata might not import correctly.



When importing an Excel file containing cruise metadata already in CruisePack you have the option to update or skip individual records, or update or skip all records. **Warning!** Updating a record will overwrite any changes and manual entries you made to that record in CruisePack.

# **User Entry Validation**

Accurate user-entered information is critical to the long-term stewardship of the data. Before packaging, CruisePack performs integrity checks on much of the user entered information and

🔳 Data	Entry Errors X
$\bigotimes$	The following critical data entry errors/ omissions exist. They must be corrected before packaging can proceed.
	•You must specify the ship name
	• You must specify at least one source.
	<ul> <li>"C:/Users/Chuck/test_data/test_data/ singlebeamzz" for calibration data path is not valid.</li> </ul>
	These non-critical data fields are empty or have invalid content. They should be fixed before packaging.
	• You should specify the arrival port
	• You should specify the departure port
	Fix Data

warns of problems.

Some of these problems are critical and packaging cannot proceed until the issues are fixed. Others will not prevent data from being packaged but they will compromise the metadata available for future data users.

🔳 Data	Entry Errors ×
1	These non-critical data fields are empty or have invalid content. They should be fixed before packaging.
	You should specify the arrival port
	You should specify the departure port
	<ul> <li>You should specify at least one scientist if appropriate.</li> </ul>
	Fix Data Continue

If there are no critical issues users have the option to continue. However, it is **highly** recommended that all issues are addressed before data are packaged.

Package   People / Org	anizations	Cruise Information	Omics   De	tasets				
		👍 👍	idditional D	lataset				
Don't	ave a calib.	ation report? Click t	o downio:	ad the calib	ration Excel	templati	e .	^
Calibration Data/Suppo	t Files Path						Select Directory	6
стр	- SBE 911	plus		• Pub	ic Release Dat	e 2020-	Nov-OE 🗸 🄰	4
Path to Data Files C:/U	sers/Chuck/tr	st_data/test_data/CTD	Select D	Virectory	Raw 🔿	Processed	Product	s
>		Add I	ata Comm	ent				٦
Gravity	Bell BGN	12		• Pub	ic Release Dat	e 2020-	Nov-DE 🗸 🕽	6
Path to Data Files persi	Chuck/test_c	ata/test_data/Gravityz	Select D	irectory	) Raw 🔘 P	rocessed	Product	
>		Add	ata Comm	ent				1
Correction Model Unkr	own		. Ob	servation Ra	e (obs/min)			
Departure Tie (milligal)		Arrival Tie (milligal		Drift	Rate per day			~
Hide Records	Import/E	xport Clear For	m	top Packaoin	a Save F	or Later	Package	Data

Fields with critical errors are highlighted in red while non-critical errors are highlighted in yellow.

# **Additional Information and Warning Messages**

#### **Package Created**



The packaging process completed normally and there were no issues. Click *No* if you want to leave CruisePack running in order to package additional data.

## **Packaging Aborted**



The listed error occurred during packaging. Try to resolve the issue and click "Package Data again. Packaging will pick up where the error occurred. A special type of this error occurs if you specified an instrument file directory that does not contain appropriate files for that instrument type. If there is not enough information to resolve the issue please contact NCEI at wcd.info@noaa.gov.

#### New or Update



You have made changes to the Cruise ID and/or Segment or Leg fields of an existing package record. This usually happens when using an existing record as a starting point for a new record. Click *Create New* to create a new record for the new package. Click *Update* if you are editing an error in the existing Cruise ID or Segment of Leg fields.

#### **Overwrite Danger**



A package with the same package name (combination of *Cruise ID* and *Segment or Leg* entries) already exists in the destination directory. This message appears if you are starting CruisePack again after an error or other stoppage. If this is the case, click *Yes* and CruisePack will skip existing files and pick up where it left off. Otherwise, rename the package and try again.

#### **Multiple Raw Datasets for one Instrument**



More than one dataset is specified as "raw" for the instrument(s) listed. Normally there is only one raw dataset (instrument created file that has undergone no post-processing) per instrument but CruisePack can package multiple raw datasets per instrument if they exist.

## Name Conflict



The package ID value must be unique in CruisePack's cruiseData.sqlite file. This warning indicates you are trying to create a new record using an existing name. If this is an additional data package from a previously packaged cruise, use the *Segment or Leg* field to create a unique package ID.

#### **Error Creating Package Directory**



CruisePack could not create the package directory at the destination. Make sure there is enough space on the destination drive and that you have write permissions. This error will also occur if you used an old package record as a template for the current package and you forgot to update the destination path.

#### **Cannot Connect to SQLite File**



This error occurs when CruisePack cannot connect to one of the SQLite files it uses as a backend database. The most common cause for this is the CruisePack executable has been moved out of the CruisePack distribution directory. It may also occur if the database directory or SQLite files have been deleted/moved from the CruisePack directory. If the database files are lost please contact NCEI for assistance.

#### **Error While Writing to Database**



This error occurs when CruisePack is saving data to the cruiseData.sqlite file. Read the details of error message in "" to get more details. This error often results from a non-ACSII character hiding in text entered in one of the boxes. This can happen with text copied and pasted from another application such as Microsoft Word. Double check any text you copied and pasted into CruisePack. These are usually non-printing characters so even if the text looks good there might be a problem. Manually typing the text or copying it into an application such as Notepad and saving it as text only is a good route to remove these characters. Contact NCEI if the error continues.

#### Error While Writing to Database – Locked File



This error occurs when the cruiseData.sqlite files is locked because it's in use by another application. This is most likely to occur if you try opening more than one instance of CruisePack at once on a Windows system but could also happen if you opened the file in a SQLite editor.

## **File Type Not Defined**



This error occurs when one or more datasets are not set as being either Raw, Processed or Products. This designation controls how CruisePack handles the data and is critical to the packaging process. Check your entries on the *Datasets* tab, correct the issue, and click *Package Data* to resume packaging.

#### **File Copy Problem**



This error occurs when CruisePack is encountering a file copy problem. CruisePack will try every 5 seconds for 5 minutes before displaying this dialog. This problem is likely the result of a network or external drive being dismounted mid-packaging run. If you can fix the problem, click *Continue* to resume packaging, otherwise click *Abort*.

# **Packaging Data in Place**

Though CruisePack is designed to package data from various source locations by copying files to the destination, it can be used to package data in place. This eliminates the need to copy files when they are already on the same drive as where the package is being created. To package in place:

- 1) Launch CruisePack and fill in metadata information as normal.
- 2) Enter "skip" as the path for all instruments you want to skip copying.
- 3) Click *Package Data*. CruisePack will create an empty package with the proper internal directory structure and initialize the bag documentation and manifest files.

• • •		
Name ^	Size	Kind
bag-info.txt	232 bytes	Plain Text
bagit.txt	55 bytes	Plain Text
🔻 📃 data		Folder
metadata.json	2 KB	JSON
test_Bathy_EM122		Folder
bag-info.txt	260 bytes	Plain Text
bagit.txt	55 bytes	Plain Text
🔻 🚞 data		Folder
EM122		Folder
蓤 localData.sqlite	229 KB	SQLite database
metadata.json	2 KB	JSON
test_Bathy_EM122_packager.log	301 bytes	Log File
manifest-md5.txt	178 bytes	Plain Text
📄 tagmanifest-md5.txt	142 bytes	Plain Text
test_CTD		Folder
test_packager.log	1 KB	Log File
test_WCSD_EK80		Folder
test_WCSD_EM122		Folder
manifest-md5.txt	2 KB	Plain Text
tagmanifest-md5.txt	142 bytes	Plain Text
	142 Dytes	FIGHT TOXE

Empty package structure after step 4

- 4) Manually move the instrument files into the appropriate empty directories.
- 5) If you did not quit CruisePack, click *Package Data* to restart. Otherwise relaunch CruisePack, select the cruise from the pull-down menu and click *Package Data*. This second running of the packaging routine is **CRITICAL** to update the checksum manifest files. If you have moved a large number of files this step may take several hours or longer.

# **Modifying Menus**

The pull-down menus in CruisePack are populated with information from one of three SQLite files that serve as CruisePack's backend database. The values listed in some of the menus can be controlled from within the CruisePack interface while others require direct manipulation of the SQLite file. There are numerous tools out there to work with SQLite files but, we are happy to modify any SQLite file that requires direct manipulation for you.

All data tables used to populate CruisePack menus contain a "USE" field with either a "Y" or "N" value. Setting the value to "N" will prevent that record from being displayed in the appropriate menu. The deletion of records in the SQLite files is generally discouraged. Many of the entries have associated UUID values that facilitate connection with the NCEI enterprise metadata system and preserving the integrity of the UUIDs is critical. Other entries are values from controlled vocabularies that are needed to facilitate database searching and discovery in the archive.

## Details on modifying each menu are below.

## Scientists and Metadata Author

Listing of individual people is set with the *Create/Edit People* interface. Open editor, select person in pull-down menu and set *Display person in pull-down lists* to "no". Bulk changes to the "USE" column can be made in the PEOPLE table within the localData.sqlite file.

# Sponsoring Organizations / Funders

Listing of individual organizations is set with the *Create/Edit Organization* interface. Open editor, select organization in pull-down menu and set *Display organization in pull-down lists* to "no". Bulk changes to the "USE" column can be made in the ORGANIZATIONS table within the localData.sqlite file.

## Projects

No changes can be made directly in CruisePack. Bulk changes to the "USE" column can be made in the PROJECTS table within the localData.sqlite file.

## **Select Existing Record**

Listing of existing packages is controlled with the Show/Hide Records interface accessible via the "Hide Records" button. Records with "show" checked are displayed. You can also remove an existing package's record from the menu by setting "USE" to "N" in the CRUISE\_DATA table within the cruiseData.sqlite file. You can also delete the records from the cruiseData.sqlite file if desired.

## Ship

Existing ships can be hidden from the menu by setting "USE" to "N" in the SHIPS table in the sourceData.sqlite file. Ship entries are tied to the NCEI enterprise metadata system so please do not add additional ships on your own. Instead, contact NCEI who will add the desired ship(s) and send you a new sourceData.sqlite file.

#### IHO Sea Area

Sea area names displayed are a small subset of the IHO Sea Area controlled vocabulary. The entire vocabulary is contained in the SEAS table of the sourceData.sqlite file. Set "USE" to "Y" to list additional areas in the menu.

## **Departure Port and Arrival Port**

Port names displayed are the US and Canadian ports contained in the UNOLS ports controlled vocabulary. The entire vocabulary is contained in the PORTS table of the sourceData.sqlite file. Set "USE" to "Y" to list additional ports in the menu. Please do not add port names. Instead, contact NCEI for assistance.

#### **Data Types and Instruments**

Data types and the instruments associated with them are contained within the INSTRUEMNTS table in the sourceData.sqlite file. Please do not edit this table without consulting NCEI. If your data type is not listed, choose "Other" for data type and use "Unlisted Instrument" for instruments not in the list.

# Legal

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