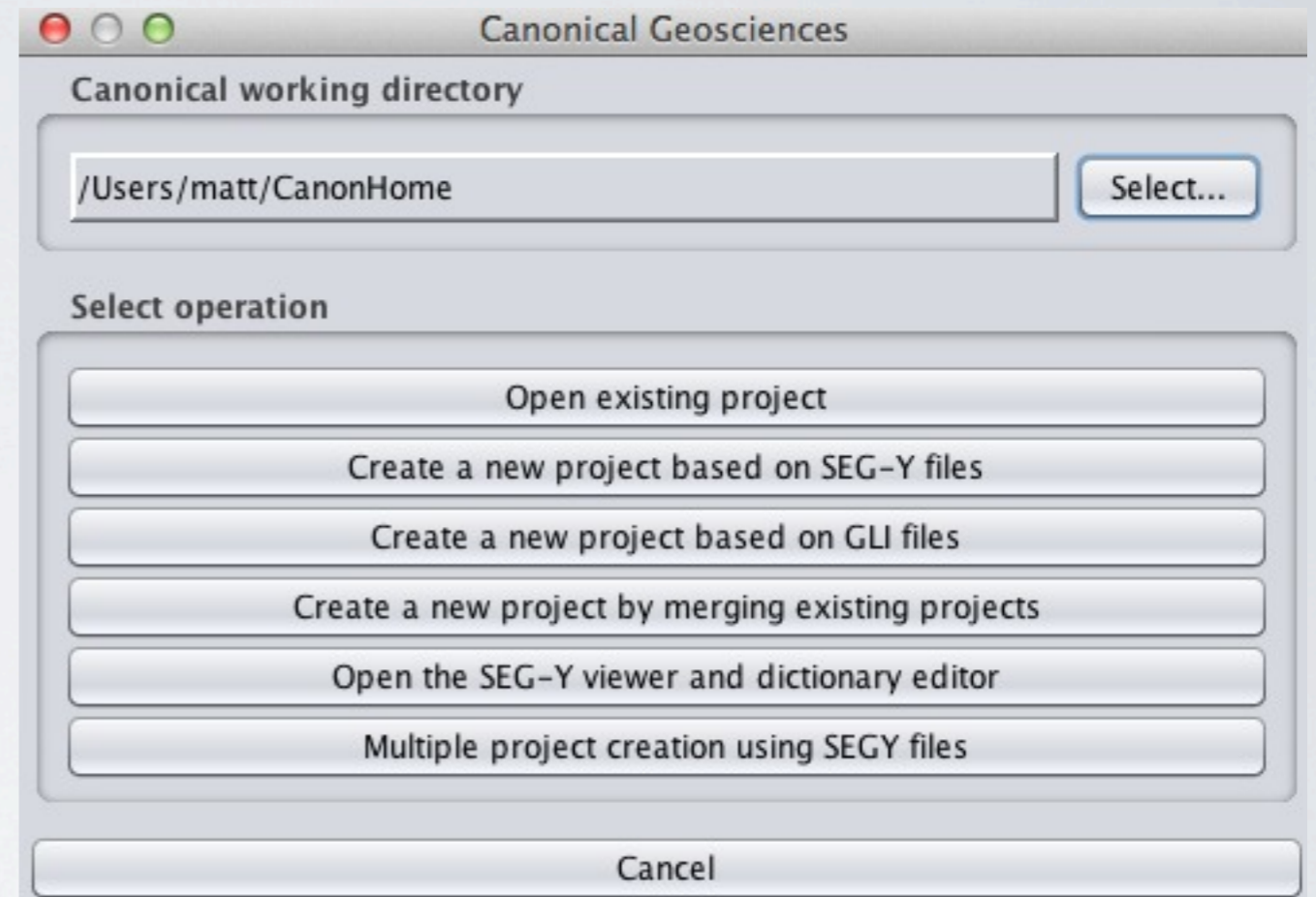


# FLATIRONS TUTORIAL - SEG-Y IMPORT

Canonical Geosciences LLC

# PROJECT CREATION: START THE APPLICATION

- This is covered elsewhere, but briefly:
- For Linux/Mac:
- Open a terminal window
- CD into the application installation directory
- Run “java -Xmx2000M -Xms2000M -jar Flatirons.jar”
- Click “Create a new project based on SEG-Y files”



# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 1

- The project name cannot have spaces or special characters
- Select the dimension and units

SEG-Y import

Project name, units, dimension

Project name

Name:

Status: Name looks okay

Project path: /Users/matt/CanonHome/RefractionProjects/PickFreeDemo

Project dimension

3D  2D

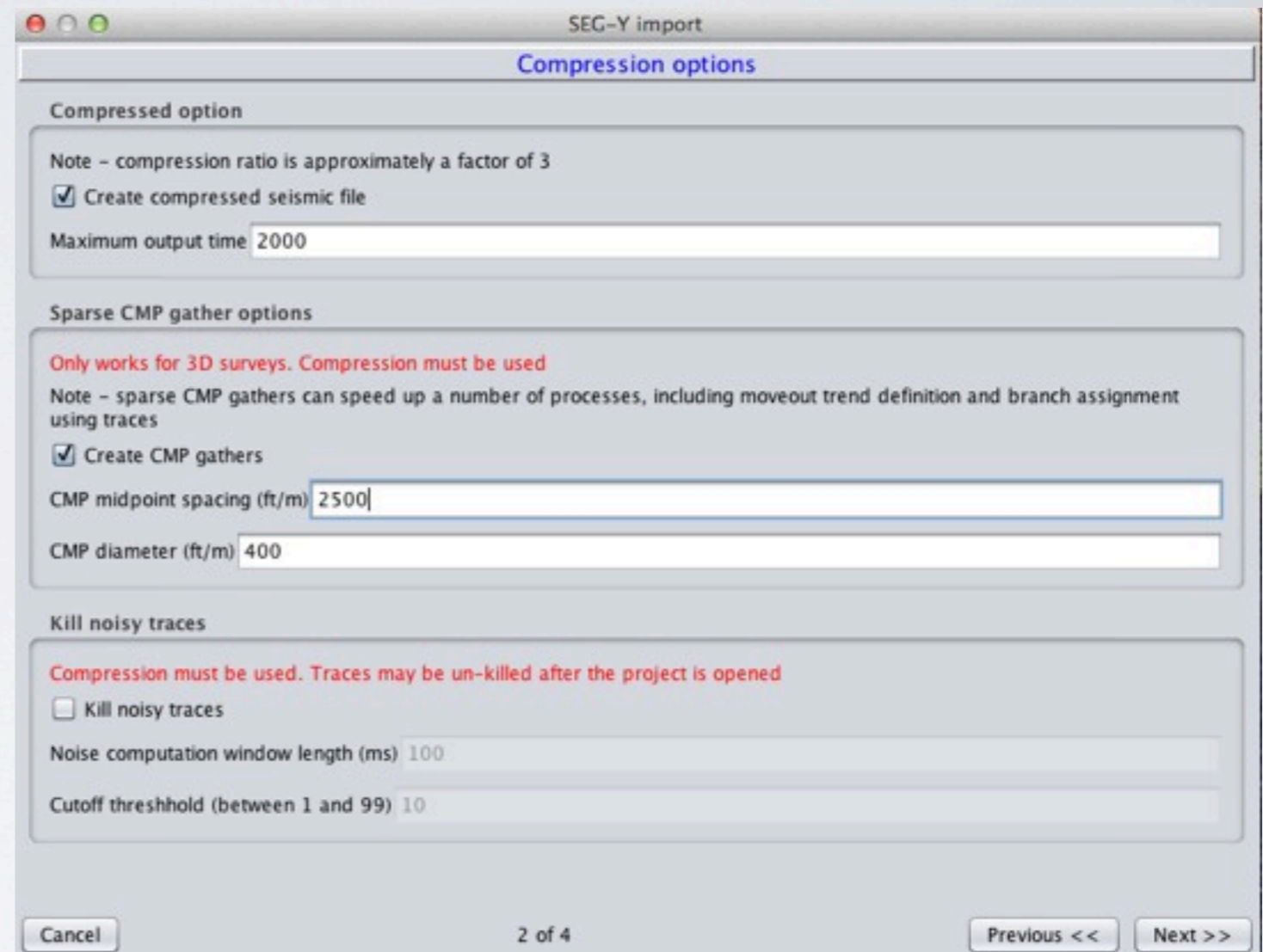
Select units

Feet  Meters

Cancel 1 of 4 Previous << Next >>

# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 2

- Compressing the data is very often a good idea. The compressed file is stored in (PROJECTDIR)/Data.
- It is highly recommended to create sparse CMP gathers. These gathers will be used to speed up a variety of processes. Sparse gathers may be created (or recreated) after the project is opened
- Killing noisy traces is not recommended at this time.



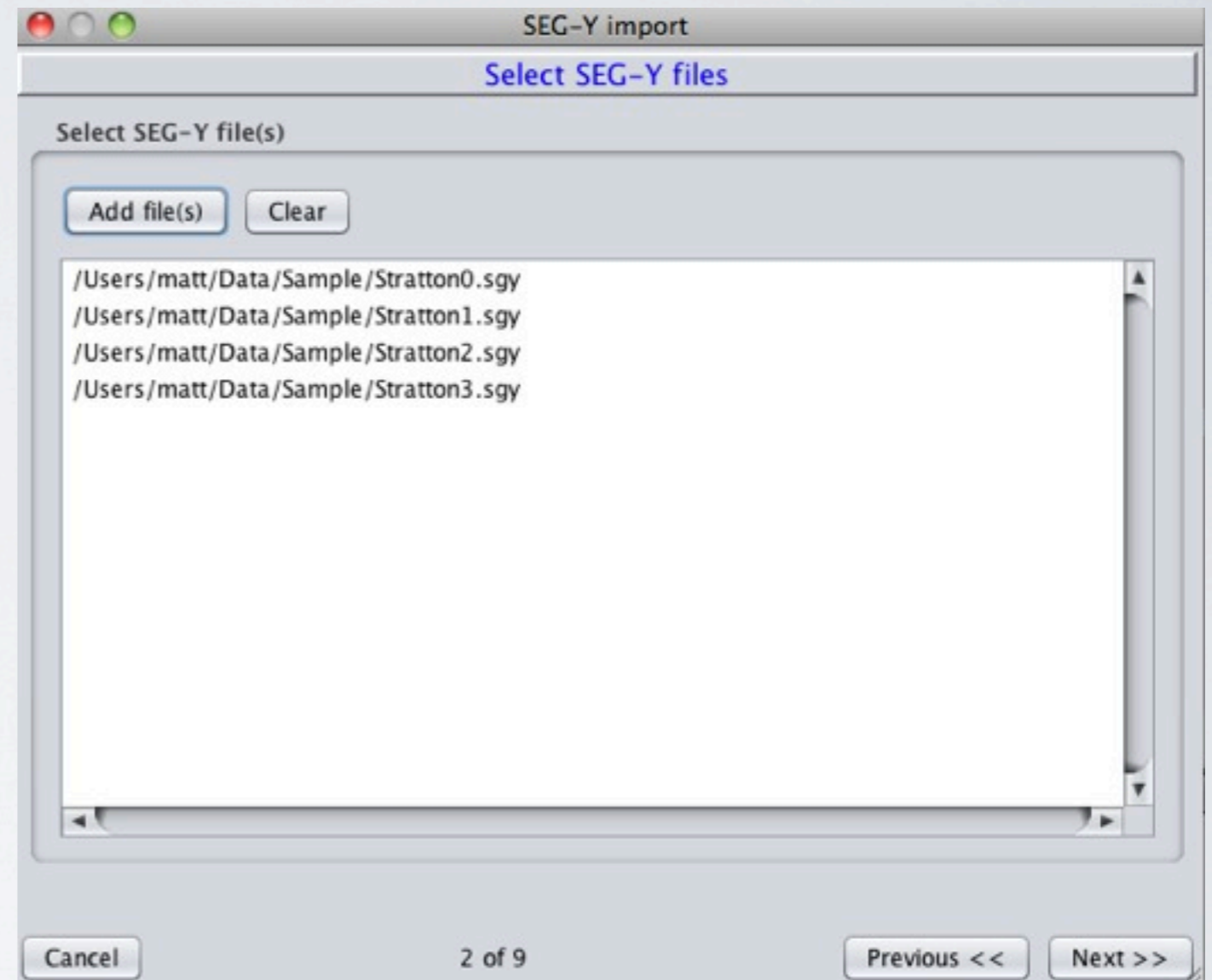
The screenshot shows a software window titled "SEG-Y import" with a sub-tab "Compression options". The window is divided into three main sections:

- Compressed option:** A note states "compression ratio is approximately a factor of 3". There is a checked checkbox for "Create compressed seismic file" and a text input field for "Maximum output time" set to "2000".
- Sparse CMP gather options:** A red note says "Only works for 3D surveys. Compression must be used". Another note says "Note - sparse CMP gathers can speed up a number of processes, including moveout trend definition and branch assignment using traces". There is a checked checkbox for "Create CMP gathers", a text input field for "CMP midpoint spacing (ft/m)" set to "2500", and a text input field for "CMP diameter (ft/m)" set to "400".
- Kill noisy traces:** A red note says "Compression must be used. Traces may be un-killed after the project is opened". There is an unchecked checkbox for "Kill noisy traces", a text input field for "Noise computation window length (ms)" set to "100", and a text input field for "Cutoff threshold (between 1 and 99)" set to "10".

At the bottom of the window, there are buttons for "Cancel", "2 of 4", "Previous <<", and "Next >>".

# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 3

- Select any number of SEG-Y files
- They must all use the same header dictionary



# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 4 SEG-Y HEADER DICTIONARY SELECTION

Click the File Open button to select a previously defined dictionary file

The screenshot shows the 'SEG-Y import' wizard, specifically the 'SEG-Y header dictionary file name' step. The interface includes a file path field, a toolbar with icons for file operations, and a table of dictionary parameters. A message at the bottom indicates that the selected file appears to be a valid dictionary.

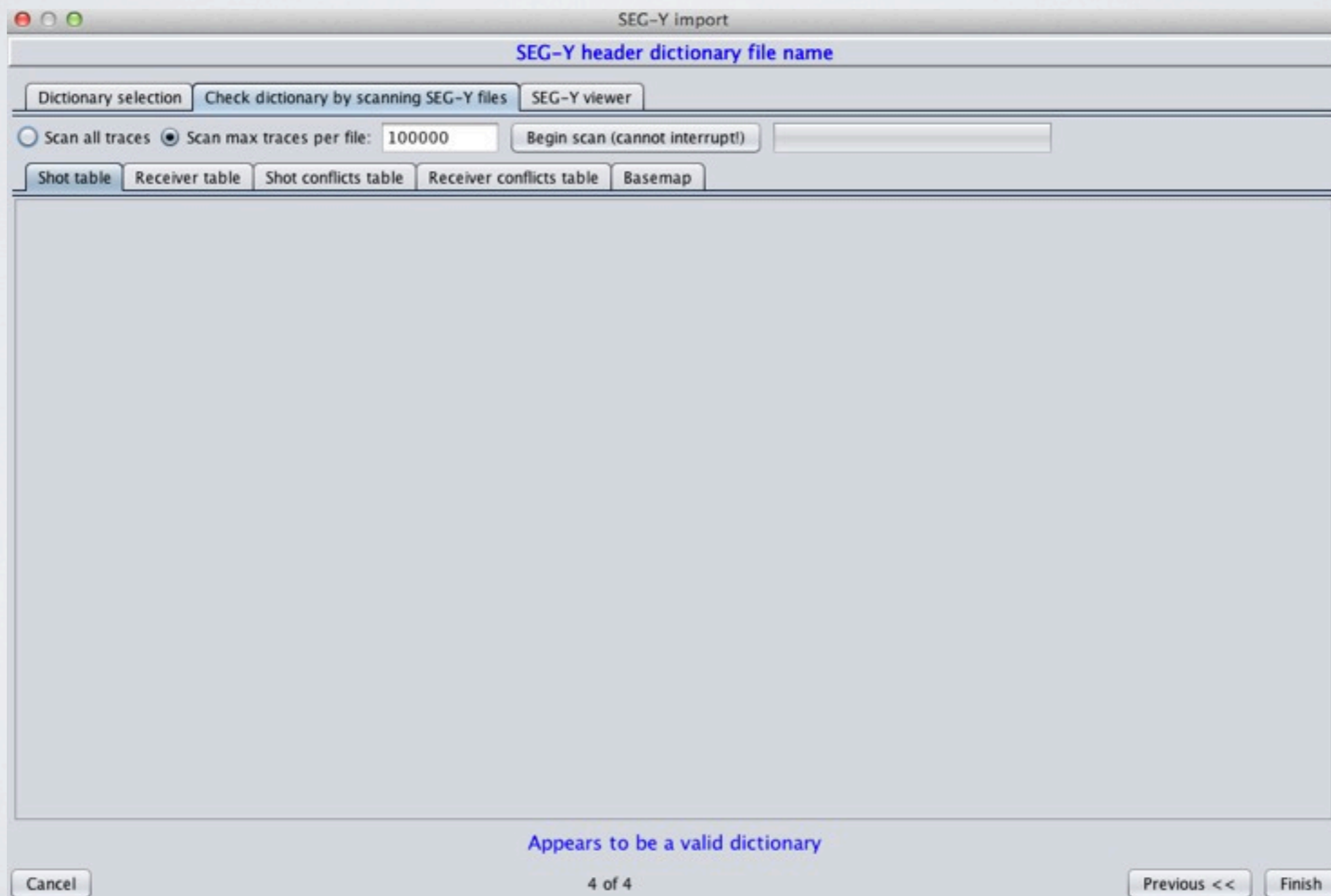
Table	Column	Header t...	Offset	Modification	Factor	Database t...	Value valid	Default v...
None	SegyScalar_Time	short	215	None		double	<input checked="" type="checkbox"/>	0.0
None	SegyScalar_Coord	short	71	None		double	<input checked="" type="checkbox"/>	0.0
None	SegyScalar_Elevation	short	69	None		double	<input checked="" type="checkbox"/>	0.0
Trace	Channel	int	13	None		int	<input checked="" type="checkbox"/>	0.0
Trace	TraceCode	short	29	None		int	<input checked="" type="checkbox"/>	0.0
Receiver	Easting	int	81	Apply the coordinate scalar		double	<input checked="" type="checkbox"/>	0.0
Receiver	Northing	int	85	Apply the coordinate scalar		double	<input checked="" type="checkbox"/>	0.0
Receiver	Elevation	int	41	Apply the elevation scalar		double	<input checked="" type="checkbox"/>	0.0
Receiver	PointNumber	int	217	None		int	<input checked="" type="checkbox"/>	0.0
Receiver	LineNumber	int	213	None		int	<input checked="" type="checkbox"/>	0.0
Shot	Easting	int	73	Apply the coordinate scalar		double	<input checked="" type="checkbox"/>	0.0
Shot	Northing	int	77	Apply the coordinate scalar		double	<input checked="" type="checkbox"/>	0.0
Shot	Elevation	int	45	Apply the elevation scalar		double	<input checked="" type="checkbox"/>	0.0
Shot	PointDepth	int	49	Apply the elevation scalar		double	<input checked="" type="checkbox"/>	0.0
Shot	UpholeTime	short	95	None		int	<input checked="" type="checkbox"/>	0.0
Shot	PointNumber	int	205	None		int	<input checked="" type="checkbox"/>	0.0
Shot	LineNumber	int	201	None		int	<input checked="" type="checkbox"/>	0.0
Shot	PointIndex	int	9	None		int	<input checked="" type="checkbox"/>	0.0
Shot	FFID	int	9	None		int	<input checked="" type="checkbox"/>	0.0

Appears to be a valid dictionary

# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 4 SEG-Y HEADER DICTIONARY SELECTION, CONT.

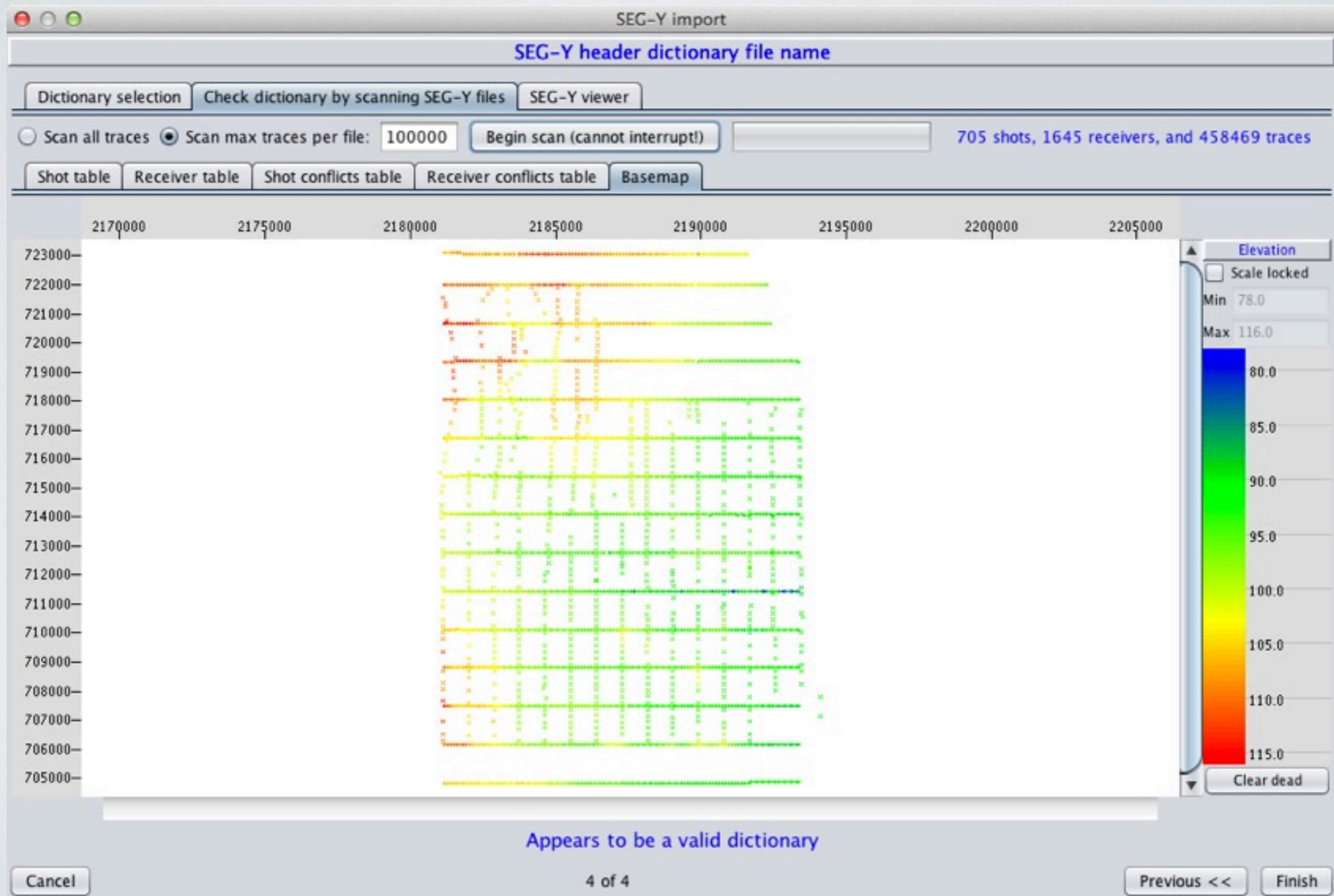
Select the tab “Check dictionary by scanning SEG-Y files”.

Then click “Begin scan...”. By default this reads the first 100,000 traces from each SEG-Y file and parses the header information, checking for header conflicts and inconsistencies. When the scan is done check the contents of “Shot table” etc.



# PROJECT CREATION: PROJECT CREATION WIZARD, PAGE 4 SEG-Y HEADER DICTIONARY SELECTION, CONT.

If everything look okay then click “Finish”





# PROJECT CREATION: PROGRESS DIALOG

Project: null

Description	Status	Message	Run time
Import Pre-stack SEG-Y files	Running		

Current action: **Import Pre-stack SEG-Y files**

Status: Save tables

Status: Number of geometry conflicts: 0 shot, 0 receiver

Time, memory: Run time: 4 seconds Free memory (MB) = 3116

Progress:

# PROJECT CREATION: INITIAL PROJECT WINDOW

- The program opens with the basemap displayed. A number of basic QC functions may be performed in this window
- For example, click both “Use color scale” check boxes and then select “ELEVATION” in the Color column drop down list box.
- The try clicking on a shot in the display - the program will highlight the receivers recorded by that shot.
- This window has additional functionality covered elsewhere

