

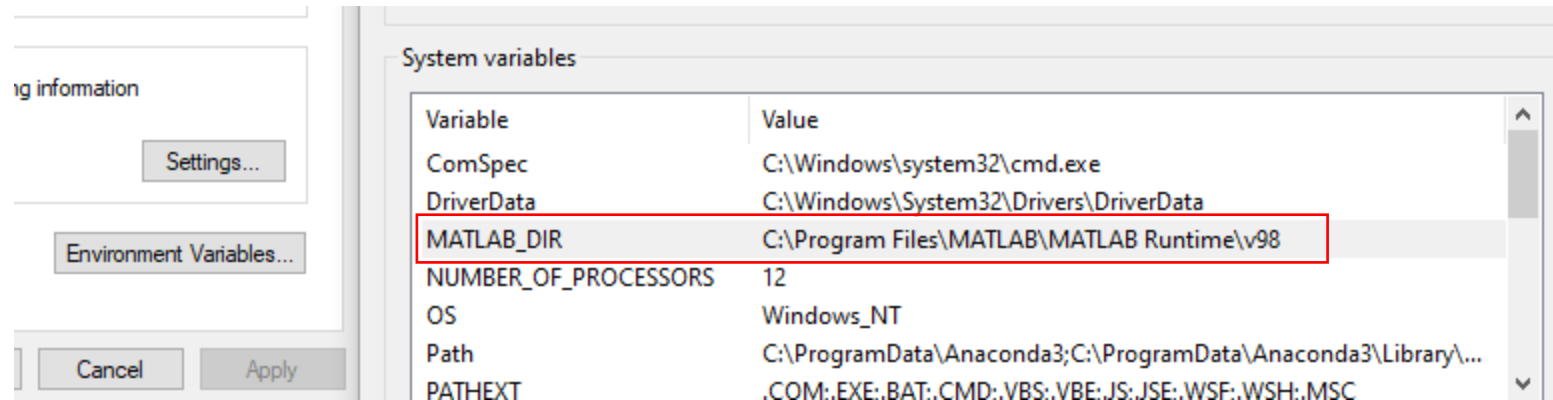
# Phase Decomposition Program

## Opendtect Link Setup

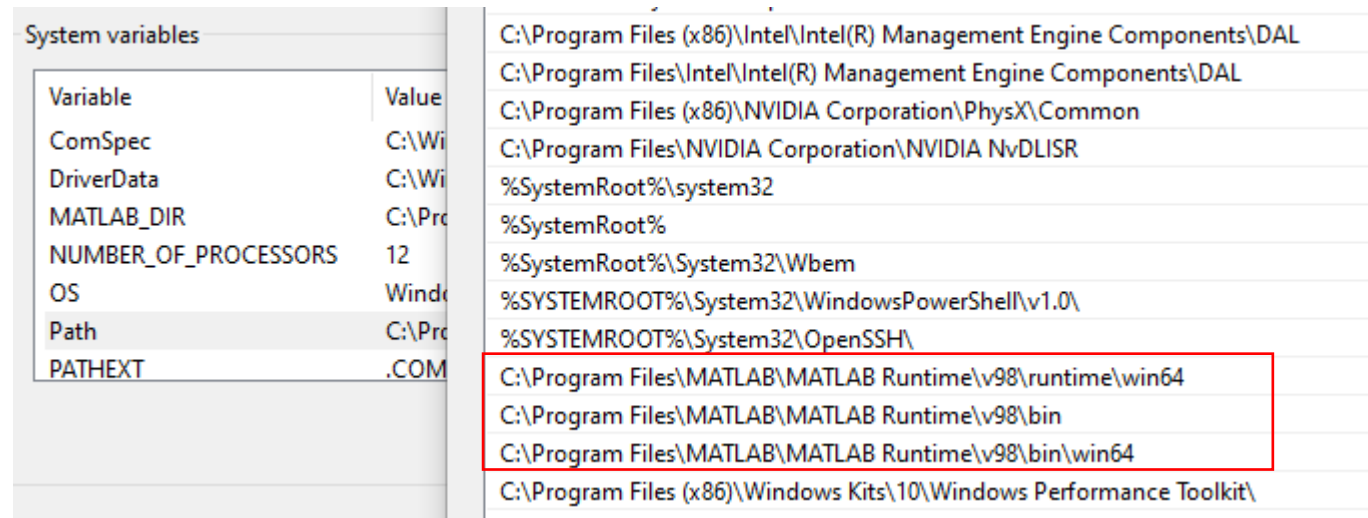
## Prerequisite

- Prerequisite files are required to install beforehand
- MATLAB (Tested on R2020) with Signal Processing license or freely available MATLAB runtime (should be same version as the program compiled with MATLAB Compiler) :  
<https://www.mathworks.com/products/compiler/matlab-runtime.html>
- Environmental setting (windows 10) for Path variable: Need to setup – Next Slide
- Tested Opendtect version : 6.4  
<https://www.dgbes.com/index.php/download>

## System Variable New – MATLAB\_DIR

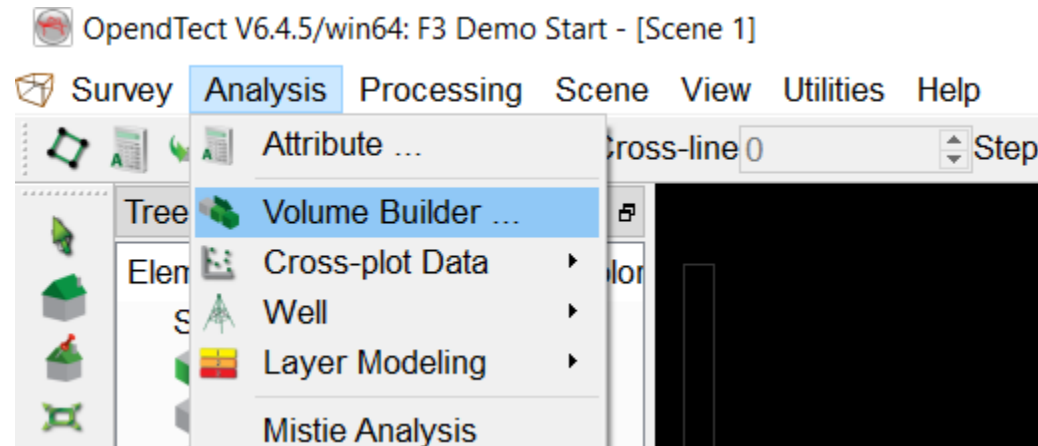


## System Variable PATH



## Opendtect Seismic Volume Run Steps

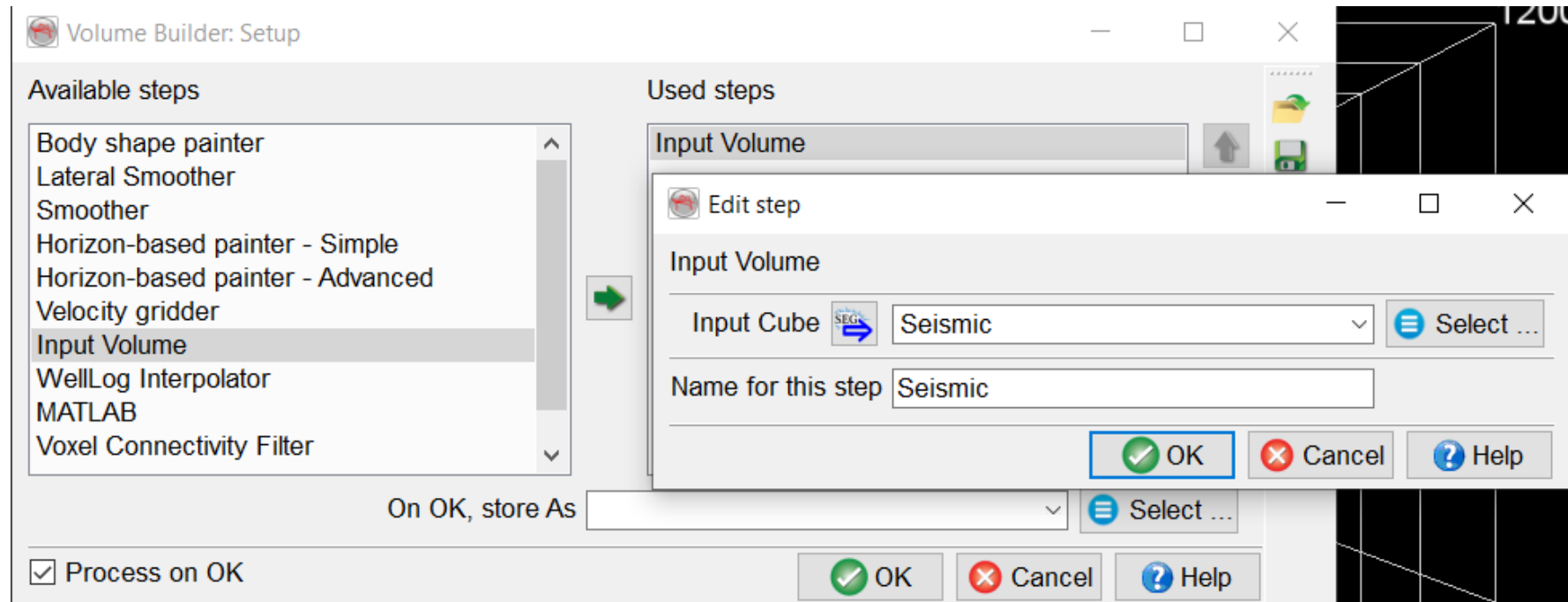
- Create the 3D seismic project and load 3D seismic data in Opendtect
- Click on Analysis>>Volume Builder\*



**\* Volume builder works only with 3D seismic**

## Opendtect Seismic Volume Run Steps

- Add Input Volume and the select the seismic cube



# Opendtect Seismic Volume Run Steps

- Add MATLAB and the select the DLL library file( c shared dll library file) and provide the requisite parameters

The screenshot shows the Opendtect V6.4.6/win64: F3 Demo Start - [Scene 1] interface. The main window displays a 3D seismic volume. The 'Tree scene 1' panel on the left lists various elements, including 'Seismic'. The 'Volume Builder: Setup' dialog is open, showing a list of available steps. The 'MATLAB' step is selected. The 'Edit step' dialog for 'MATLAB' is also open, showing the 'Input' section and a table of parameters.

**Select and change the input parameters**  
**Sampling interval must be same as seismic volume**

	Parameter	Value
1	Sampint	4
2	MinTimeGap	4
3	Windowsize	16
4	PhaseComp	-90
5	CombinationFlag	0
6	NormalizationFlag	1
7	InLine2DSmoothingFlag	1
8	InLine2DSmoothingSize	5
9	XLine2DSmoothingFlag	1
10	XLine2DSmoothingSize	5

Name for this step MATLAB - PDOE3DFilter2D

6

OK Cancel