

## INTERACTIVE FEATURE EXTRACTION USING PARAVIEW

# Short Documentary

This document gives a short introduction on how to use and modify the feature extraction tool.

The actual version is available on github <https://github.com/PatRuediger/GeodynamoExtrapolations/tree/master/InteractiveFeatureDefinition>. Make sure you have Paraview v4.0 or greater and Python 2.7 installed.

## USE IN PARAVIEW

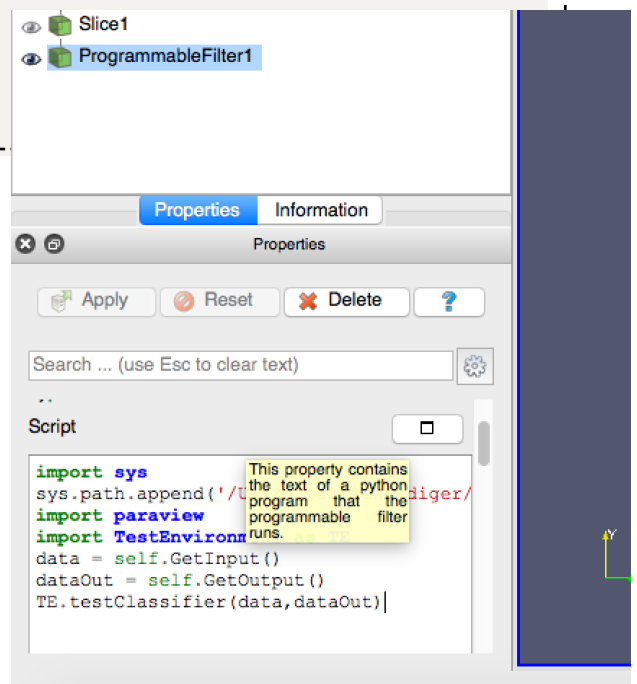
1. Find out your local path, where you saved the code from github. We will refer to it as `localpath` from now on.
2. Open the dataset in Paraview.
3. (Optional) Choose one of the available tools from Paraview to generate a subset of interest. You can use any tool, that outputs a Paraview in the Pipeline Browser.
4. Choose the data object from the Pipeline Browser you want to apply the Feature Extractor.
5. Go to Filters -> Data Analysis -> Programmable Filter
6. In the Script section add the following:

```
import sys
sys.path.append('localpath')
import paraview
import TestEnvironment as TE
data = self.GetInput()
dataOut = self.GetOutput()
TE.testClassifier(data, dataOut)
```

Where `localpath` is the directory of your used python scripts. `TestEnvironment` is currently only a placeholder. Basically it collects all the necessary subscripts so that the filter above doesn't need special treatment. Remember to add additional non „standard“ python packages to the `sys.path` as well.

Now hit Apply and the feature will be calculated only for the selected subset. It could take some while depending of the data size and the complexity of the feature.

You can now save the filter as a Paraview-State file and use it on other datasets.



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### CUSTOMIZED FEATURE EXTRACTORS

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