\*\*Documentation for the Program "datafile\_V\_FINAL"\*\*

The Python program "SVF" calculates sensitivity values for various parameters. Here's a detailed description:

1. \*\*Function Name\*\*: SVF

2. \*\*Parameters\*\*:

- `edt1`, `edt2`: Names of the two variables (e.g., 'SoC\_min', 'SoC\_max', 'Faraday\_Constant', etc.)

- `Val1`, `Val2`: Values for the two variables

3. \*\*Function Flow\*\*:

- Compute sensitivity values based on the given parameters.

- Utilize known information (e.g., min/max values, material costs, etc.).

- If specific values are not provided, default values are used.

4. \*\*Example Call\*\*:

```python

SVF(

'Concentration\_pos',

0.01,

4,

80,

'Exponential',

'Current\_Density',

1,

500,

300,

'Exponential'

)

```

4. \*\*Notes\*\*:

- Ensure that the required libraries (`numpy`, `pandas`, and `sensitivity\_plot`) are installed.

- Customize the variable names, ranges, and scaling options according to your specific use case.