OPMRUN
Graphical User Interface
For
OPM Flow

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Graphical User Interface For OPM Flow

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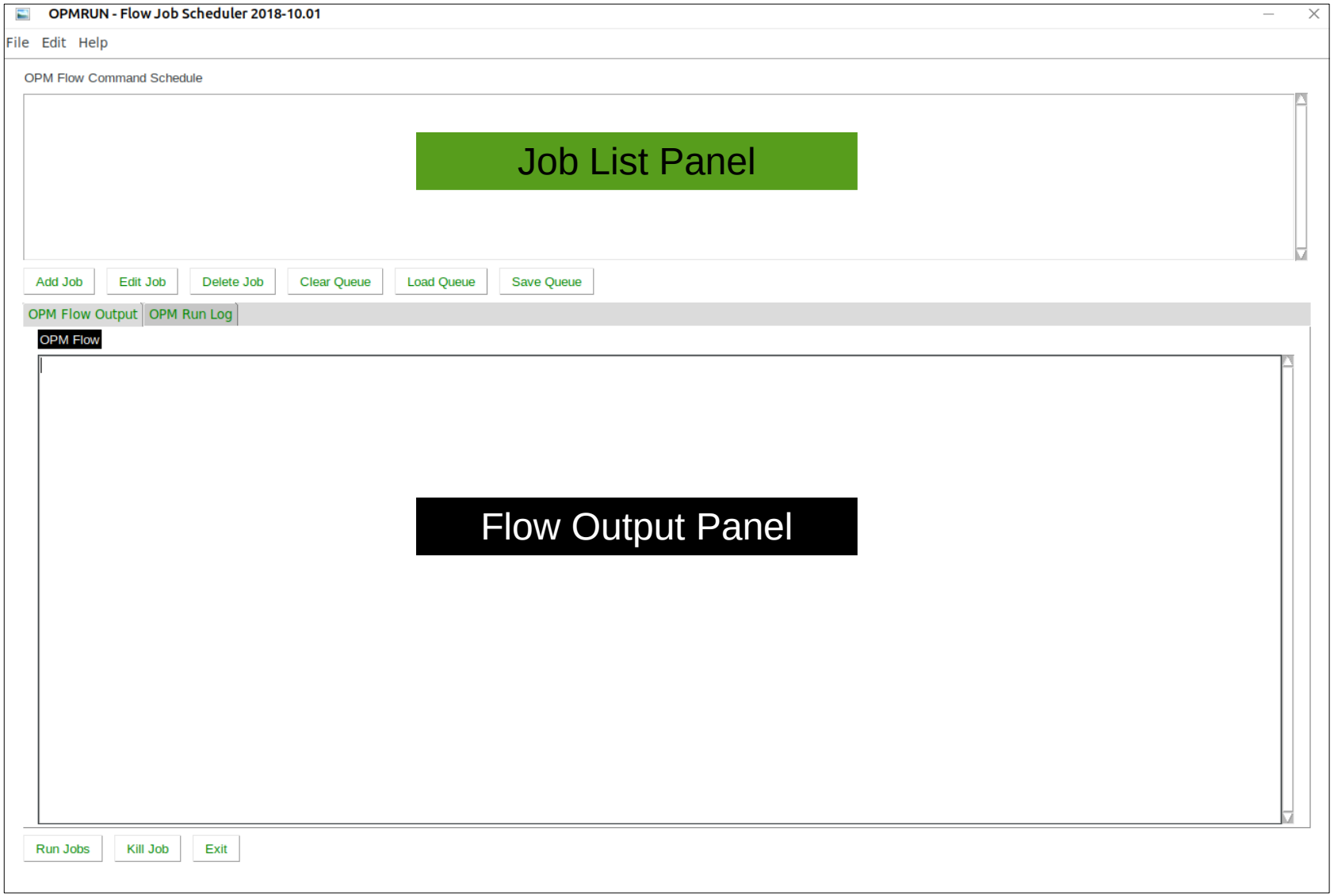
Date	Revision	Description	Prepared	Checked	Approved
2018-11-25	Rev-0	Initial Release	D. Baxendale	N/A	N/A

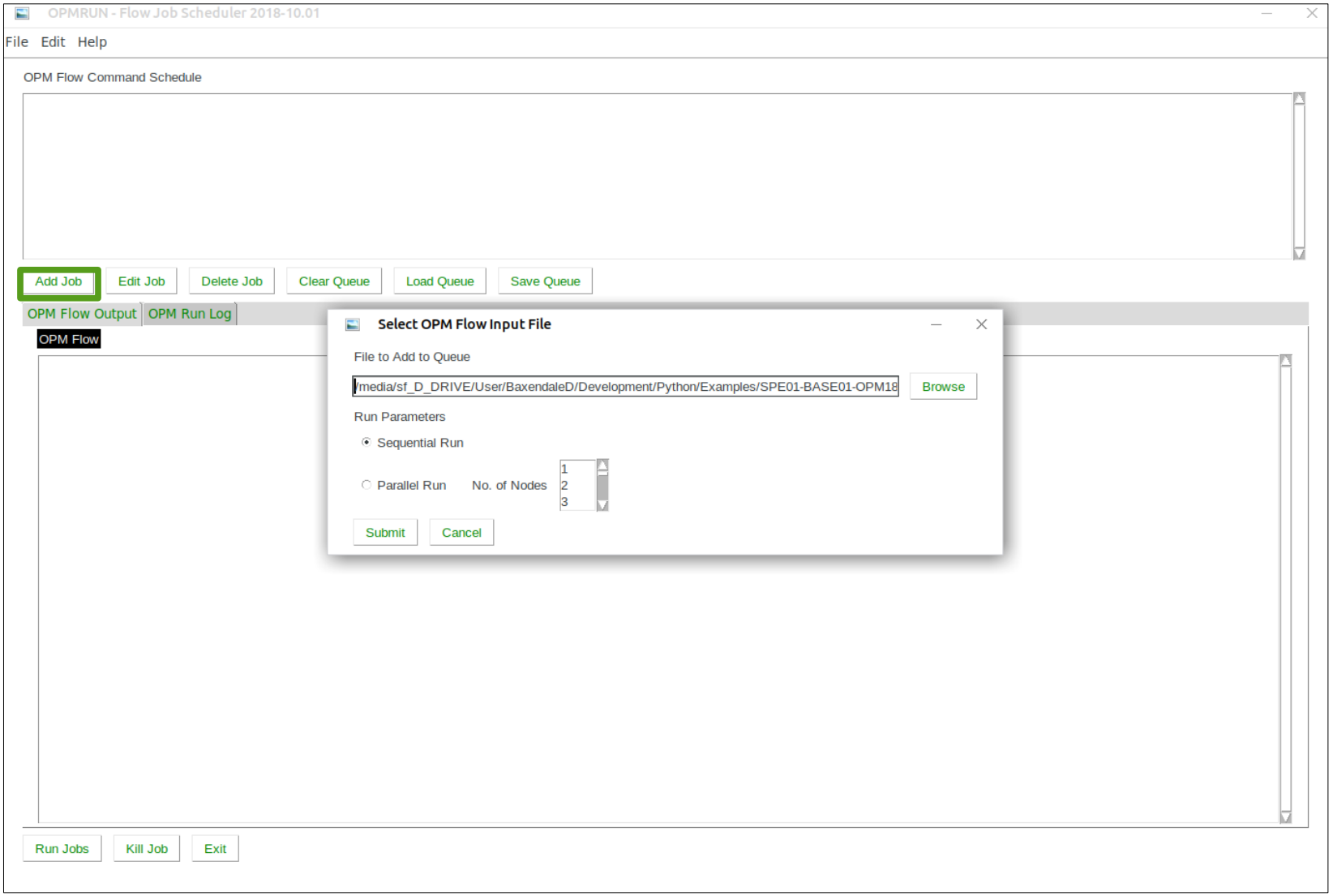
EIPC OPMRUN:What Is It?

- A graphical user interface to OPM Flow that has similar functionality to the commercial simulator's ECLRUN program.
- Target audience are Reservoir Engineers in a production environment. Developers and experienced Linux users will already have compatible work flows.
- Allows editing and management of OPM Flow's run time parameters. Default parameters are automatically loaded from Flow, and the user can reset the default set either from a parameter or PRT file.
- Allows simulation jobs to be queued and run. Queue can be set to run in NOSIM mode or RUN mode.
- Queues can be edited, saved and loaded.
- Written in Python 3 and tested under Unbuntu-Mate 18.04 TLS.

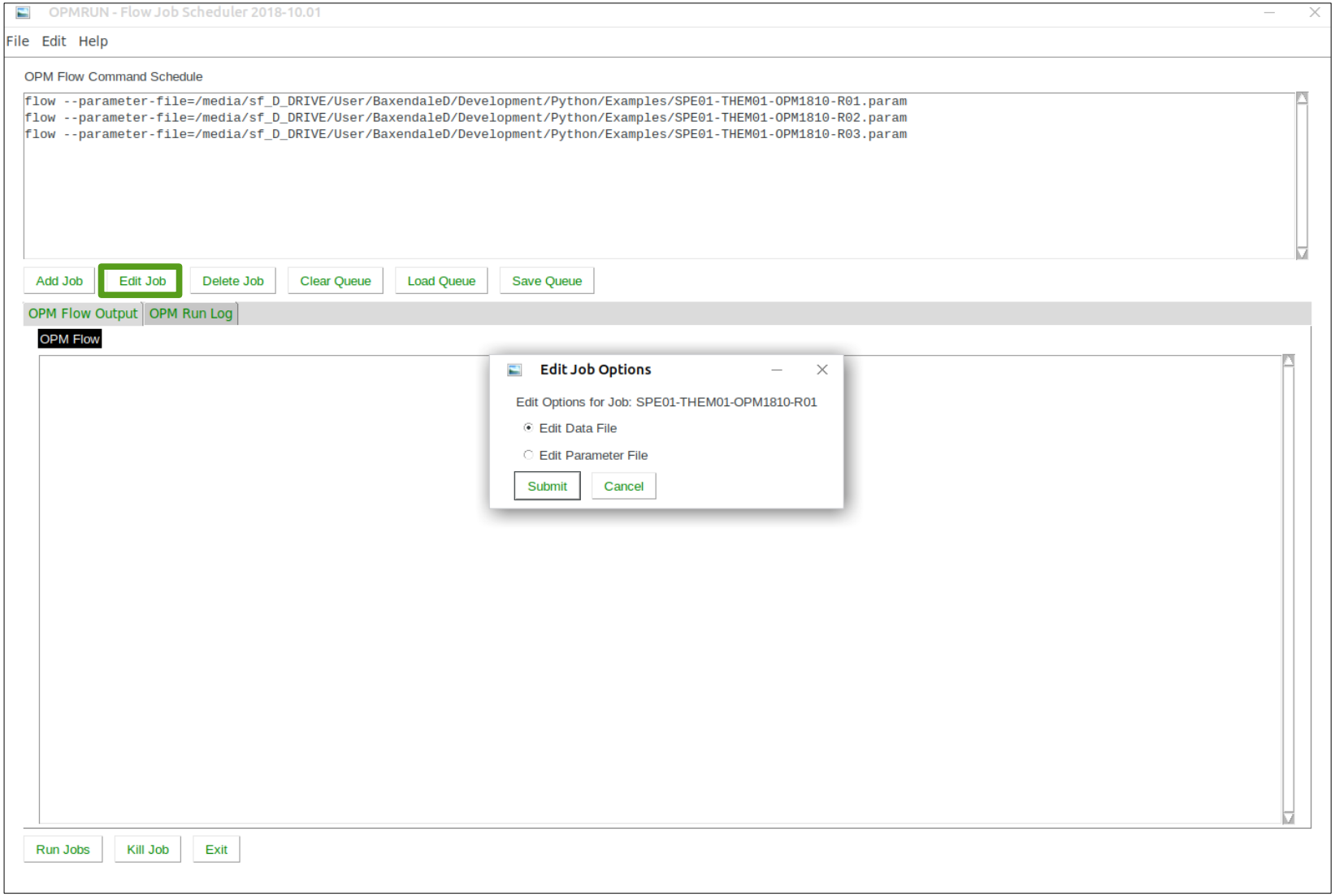
EIPC OPMRUN: Simple And Clean Interface



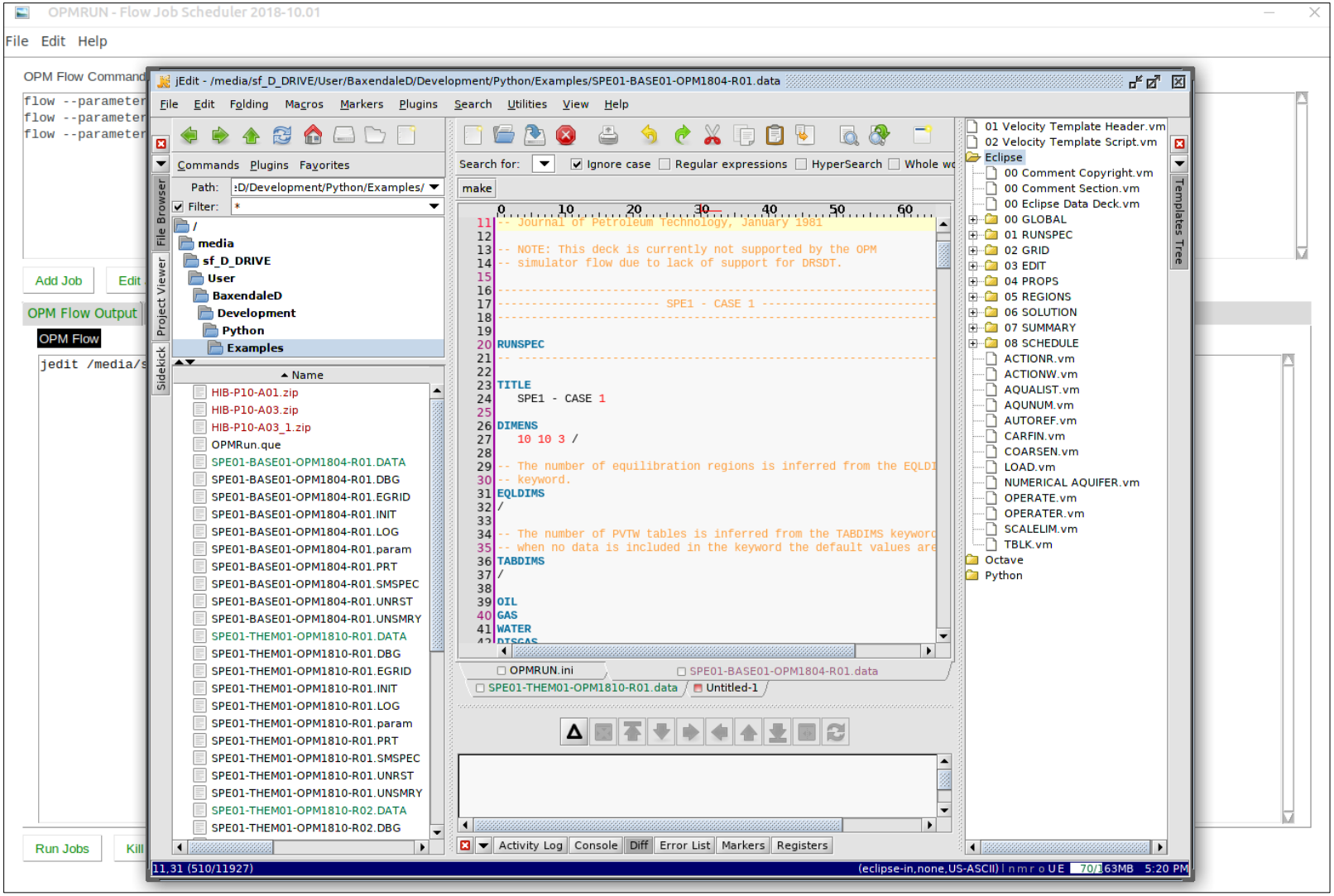
EIPC OPMRUN: Add Job And Select Run Type



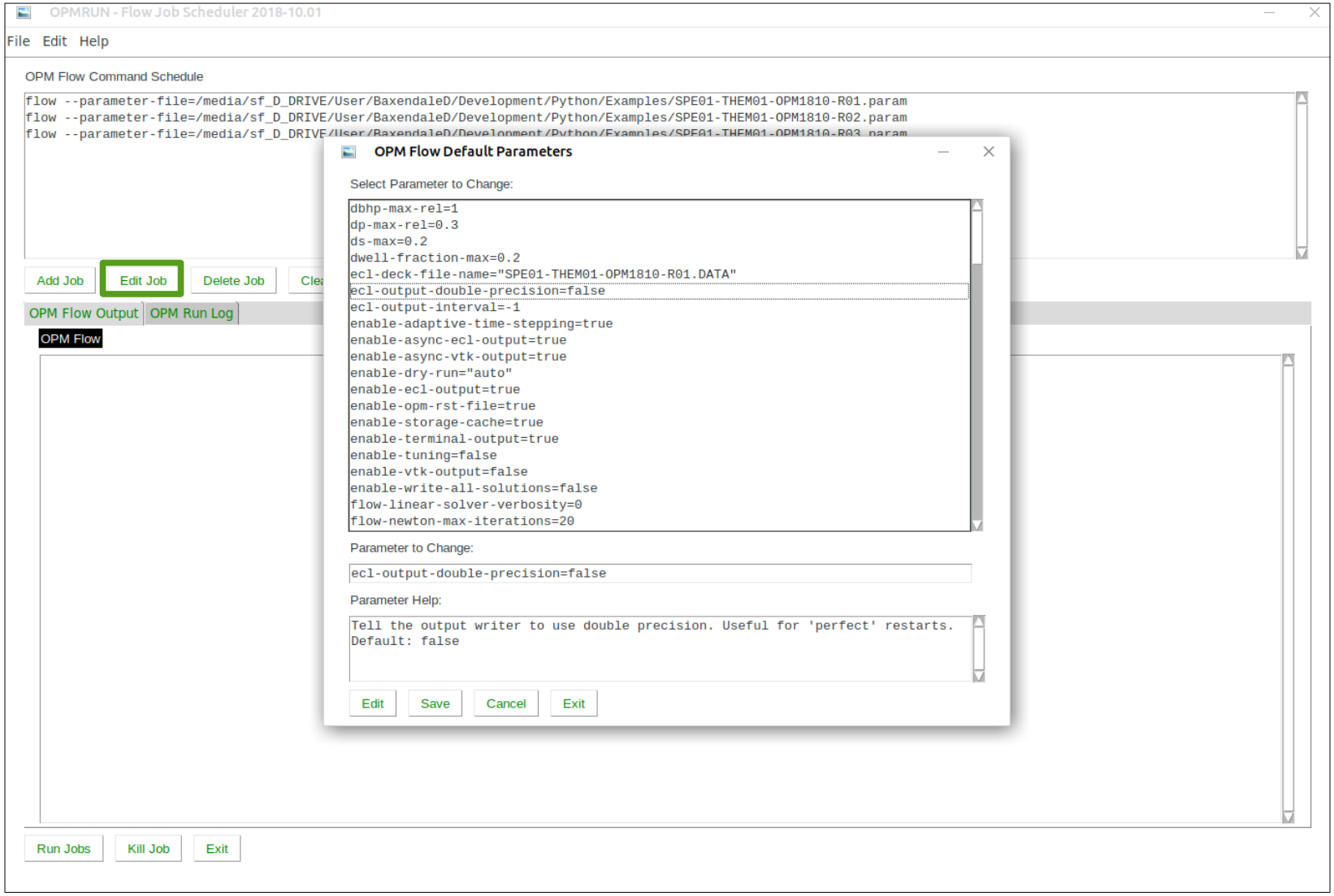
EIPC OPMRUN: Edit Job Data & Parameter File



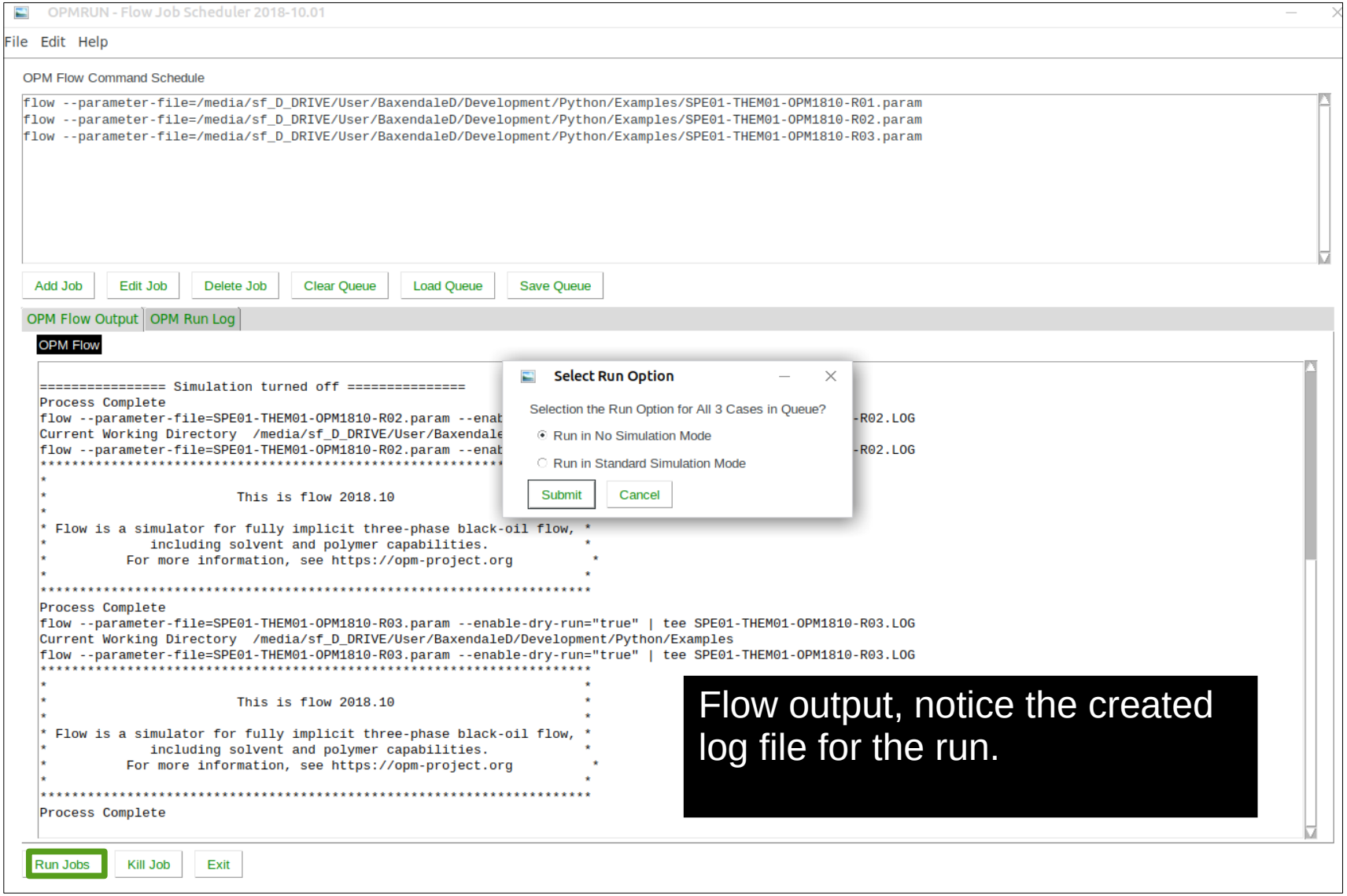
OPMRUN: Edit Data File



OPMRUN: Edit Parameter File With Help

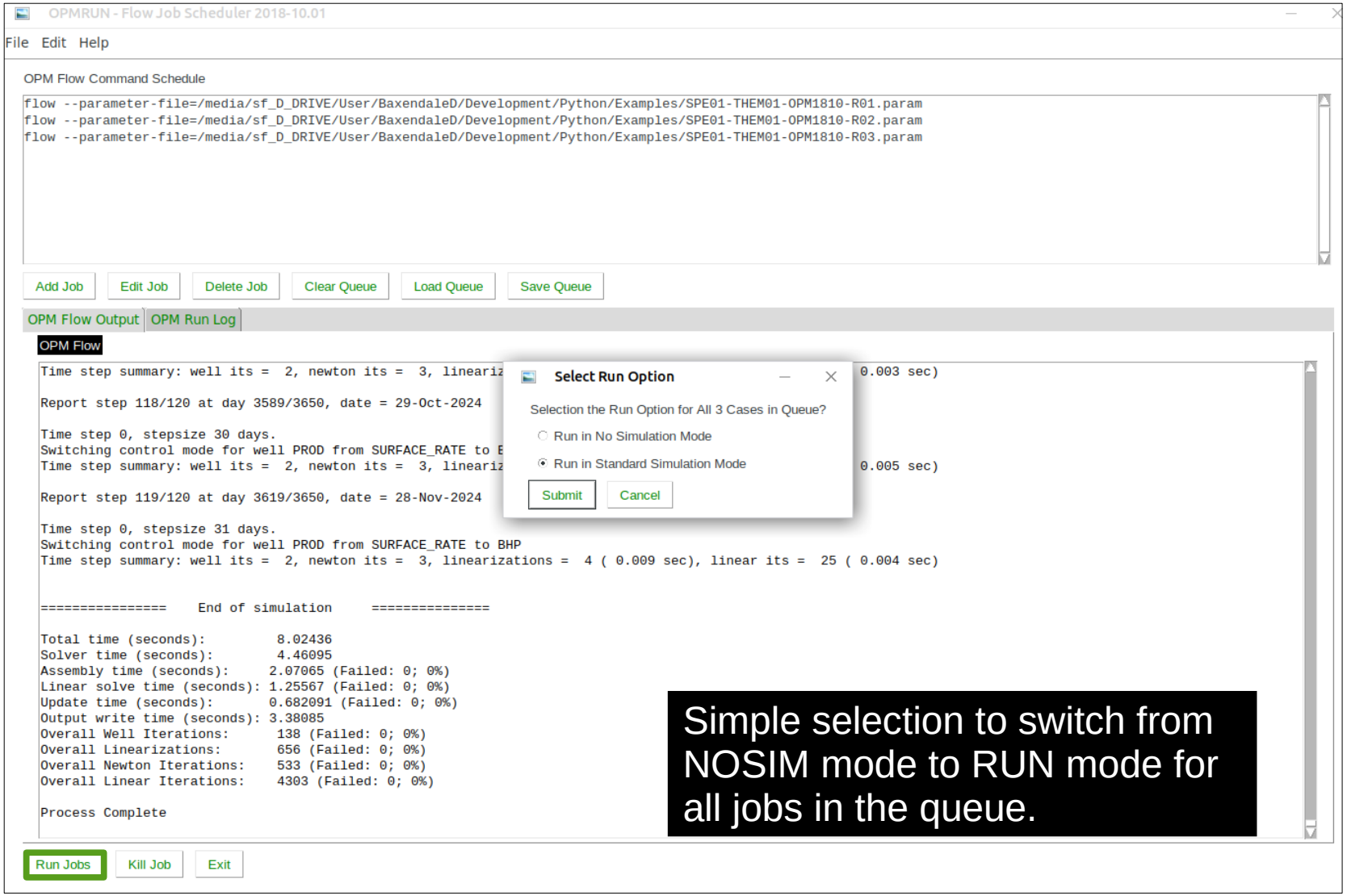


OPMRUN: Run Jobs In Queue Options



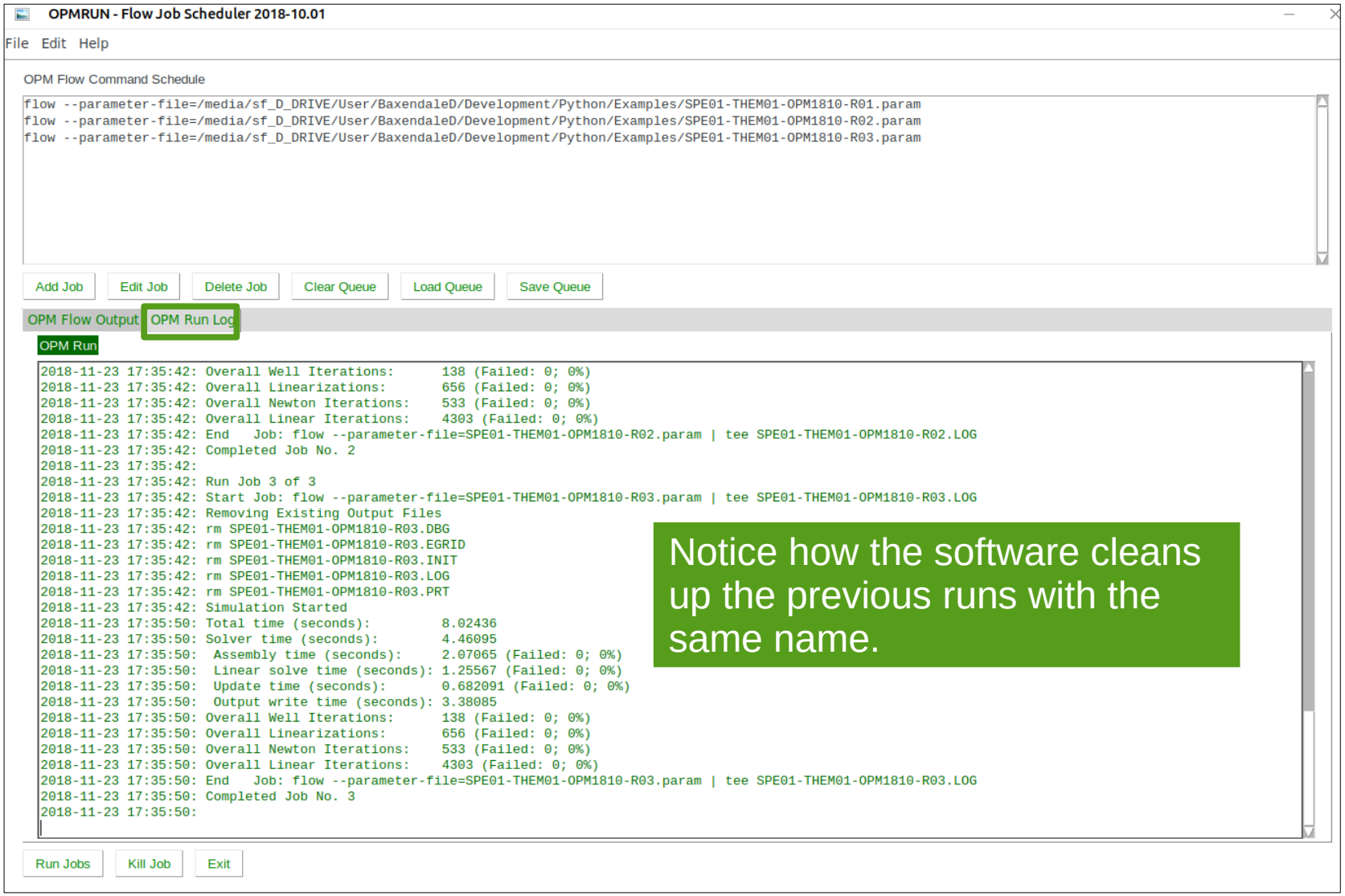
Flow output, notice the created log file for the run.

OPMRUN: Run Jobs In Queue Options



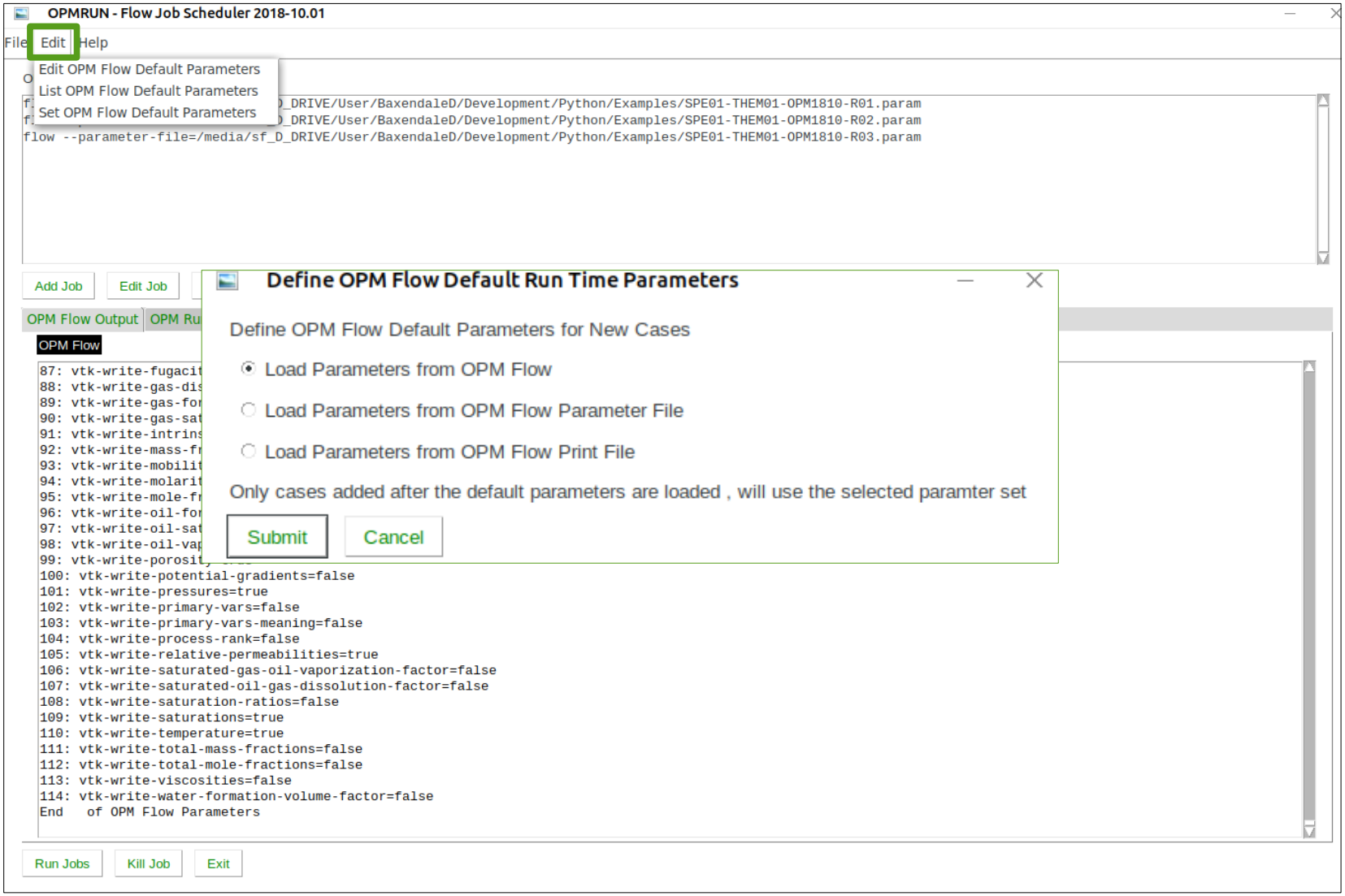
Simple selection to switch from NOSIM mode to RUN mode for all jobs in the queue.

OPMRUN: Schedule Log For Tracking Progress

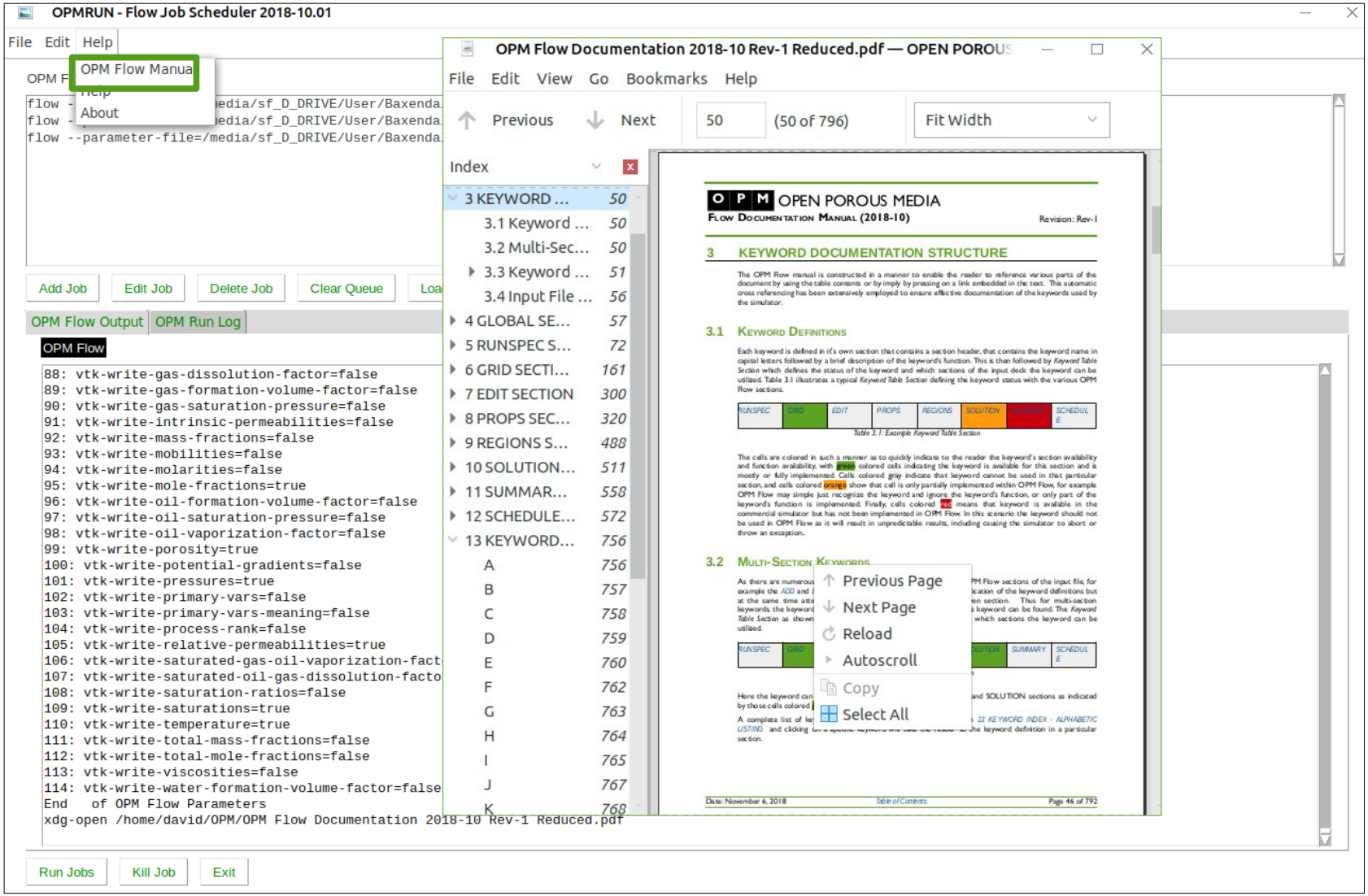


Notice how the software cleans up the previous runs with the same name.

OPMRUN: Set Parameter Default Options



OPMRUN: Manual Available



OPMRUN: OPMRUN.INI Settings File

- Stored in user's home directory in sub directory OPM.
- Currently limited to:
  - Setting the editor,
  - Manual location, and
  - Flow output panels font and font size.

OPMRUN.ini

```
#
# OPMRUN Initial File
#
# File Name    : "/home/david/OPM"
# Created By   : david
# Date Created: 2018-11-21 11:52:07
#
edit-command="jedit"
opm-flow-manual="/home/david/OPM/OPM Flow Documentation 2018-10 Rev-1 Reduced.pdf"
output-font=Courier
output-font-size=10
#
# End of OPMRUN Initial File
```

E I P C OPMRUN:What Is Next?

- Test and debug on various Linux versions. Note this is the first application by the author written using Python, so the code quality will be variable.
- Add more functionality:
  - Implement Kill Job option.
  - Add and edit OPMRUN properties dialog to edit the program's settings.
  - Add view results options to view the DBG, LOG, and PRT files.
  - Add job case compression option, to compress all a runs files into a single zip file for archiving.
  - Add real time plotting panel to see how the run is performing. May be need to have OPM Flow write out the field fluid rates and average pressure to the terminal.
  - Add progress bar showing the progress of each job, need the total number of days for the simulation.
- Once stable eventually aim to be part of the OPM Flow distribution as a binary file.

Eclipse Modeling Options

End of Presentation