OPMRUN
Graphical User Interface
For
OPM Flow

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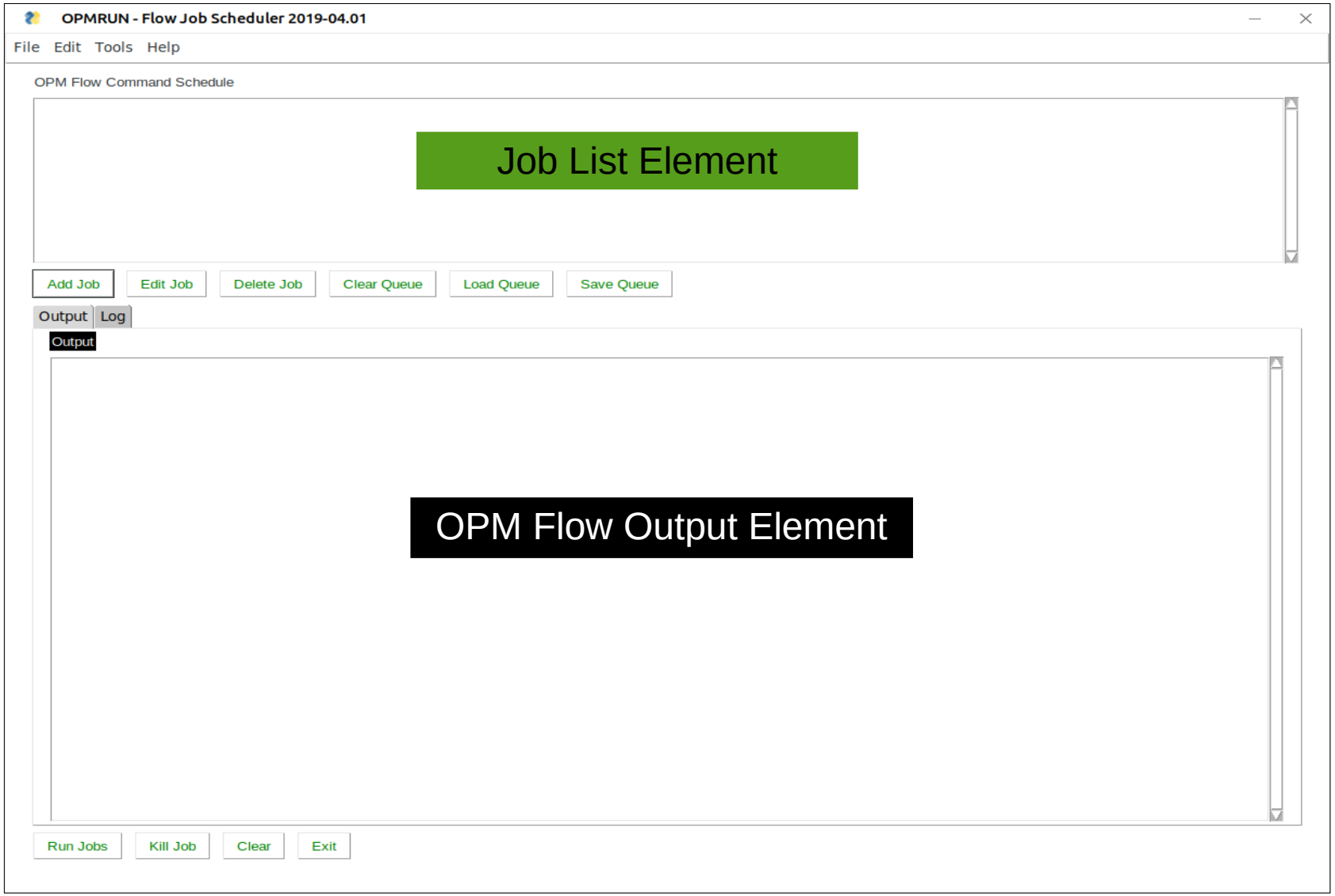
Graphical User Interface For OPM Flow

Date	Revision	Description	Prepared	Checked	Approved
2018-11-25	2018-10-1	Initial Release	D. Baxendale	N/A	N/A
2018-12-04	2018-10-2	Update	D. Baxendale	N/A	N/A
2019-06-10	2019-04-1	Version Update	D. Baxendale	N/A	N/A

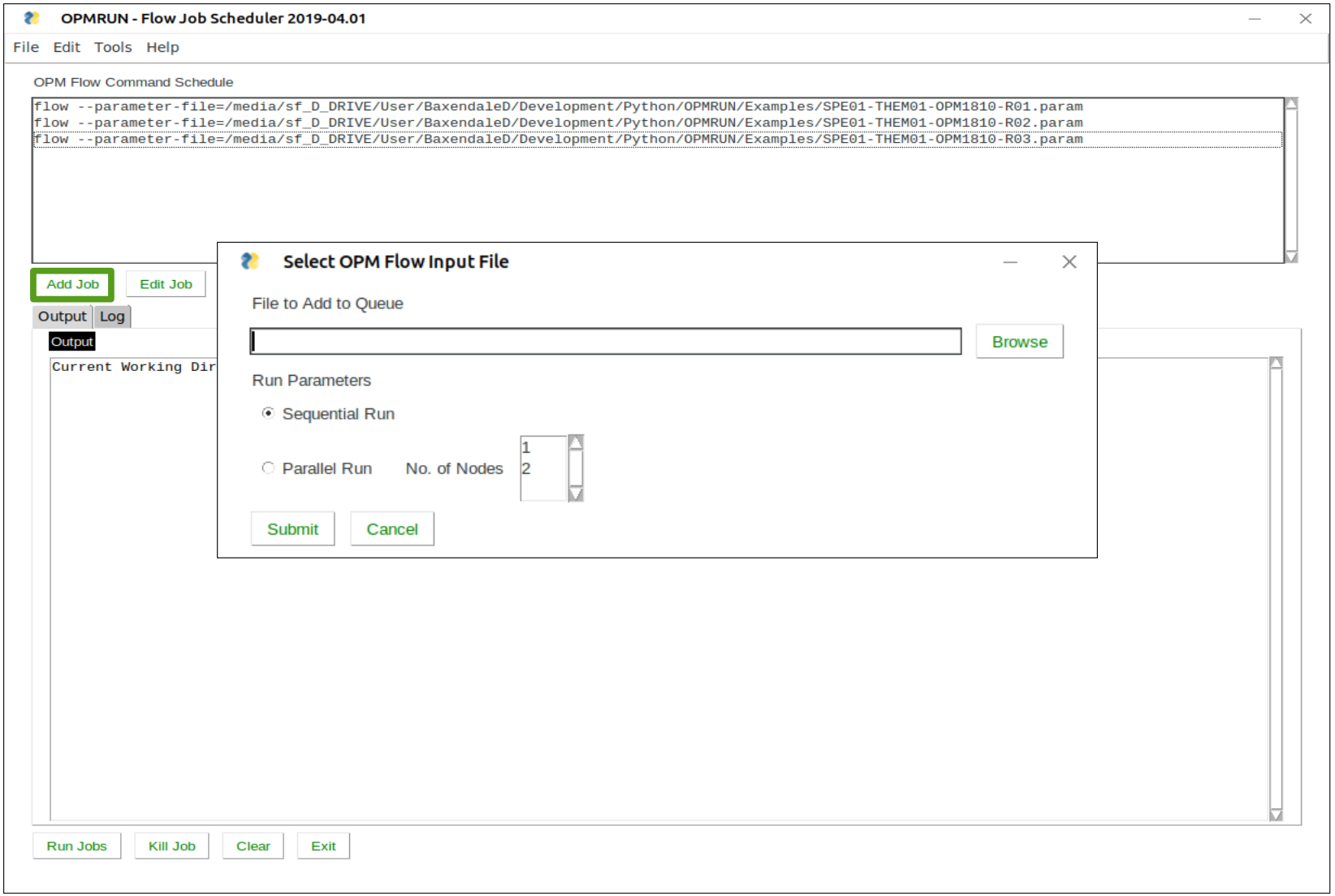
EIPC OPMRUN:What Is It?

- 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 OPM Flow, and the user can reset the default set either from a parameter or PRT file. Editing of a job's parameter file is also available.
- Allows simulation jobs to be queued and run in either foreground (under OPMRUN), or background (in an xterm terminal session). Jobs in the queue can be set to run in NOSIM mode or RUN mode.
- Foreground jobs can be killed from OPMRUN.
- Queues can be edited, saved and loaded.
- Jobs can be compressed to save space (DATA , and all OPM Flow output files) and uncompressed.
- Written in Python 3 and tested under Unbuntu-Mate 18.04 TLS.
- Compiled binary version should work on all Linux systems, no need to install dependencies or Python.

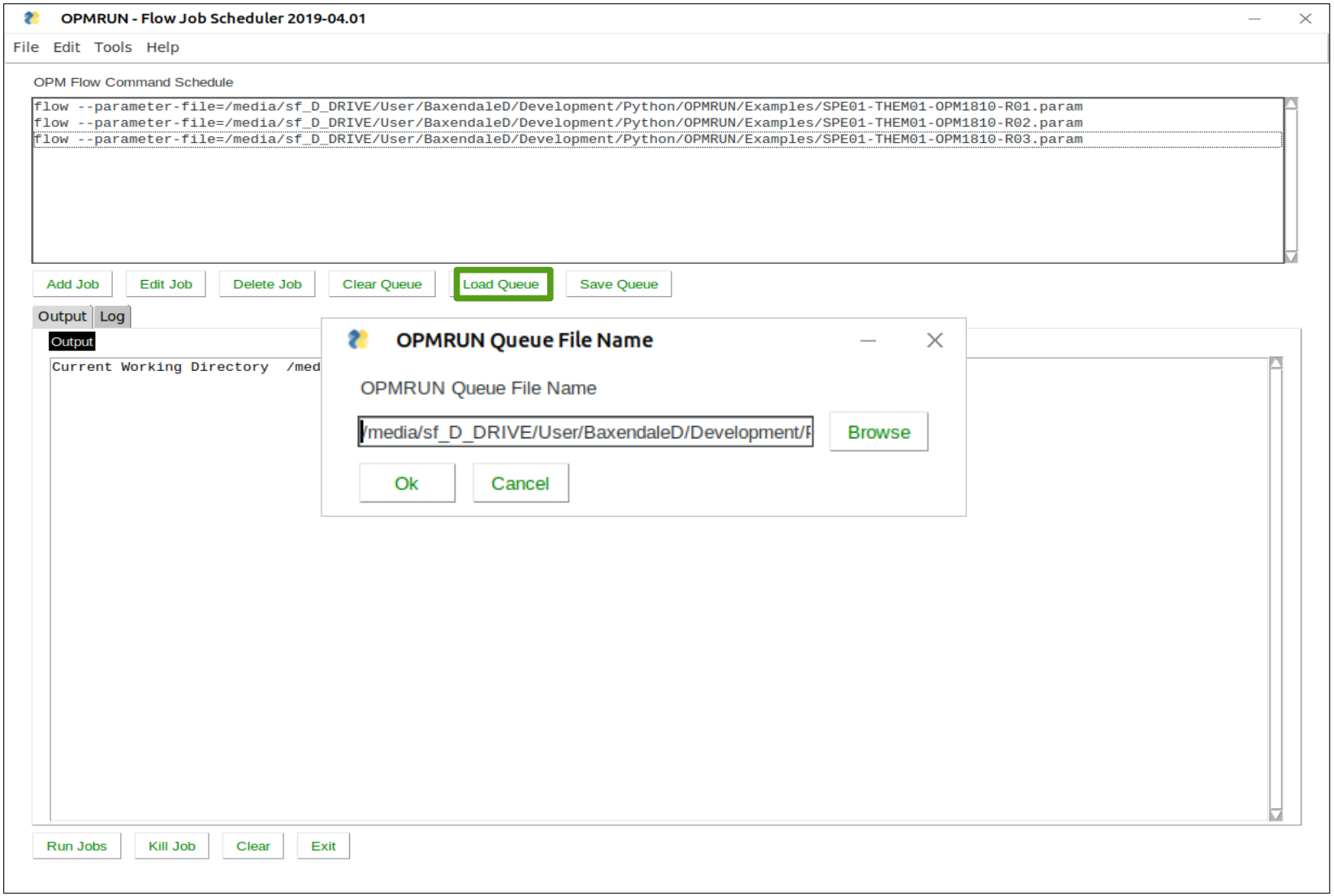
OPMRUN: Simple And Clean Interface



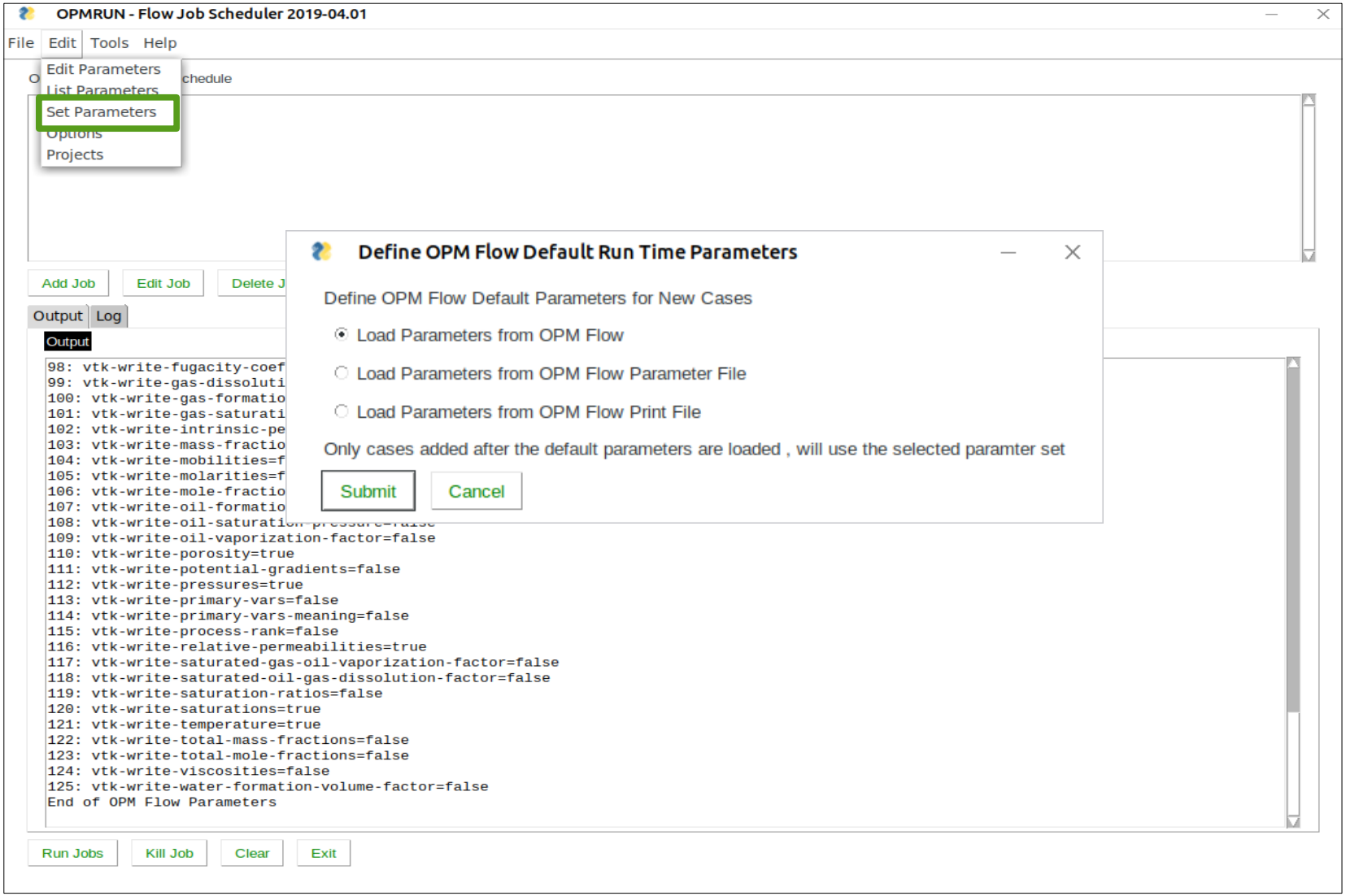
OPMRUN: Add Job And Select Run Type



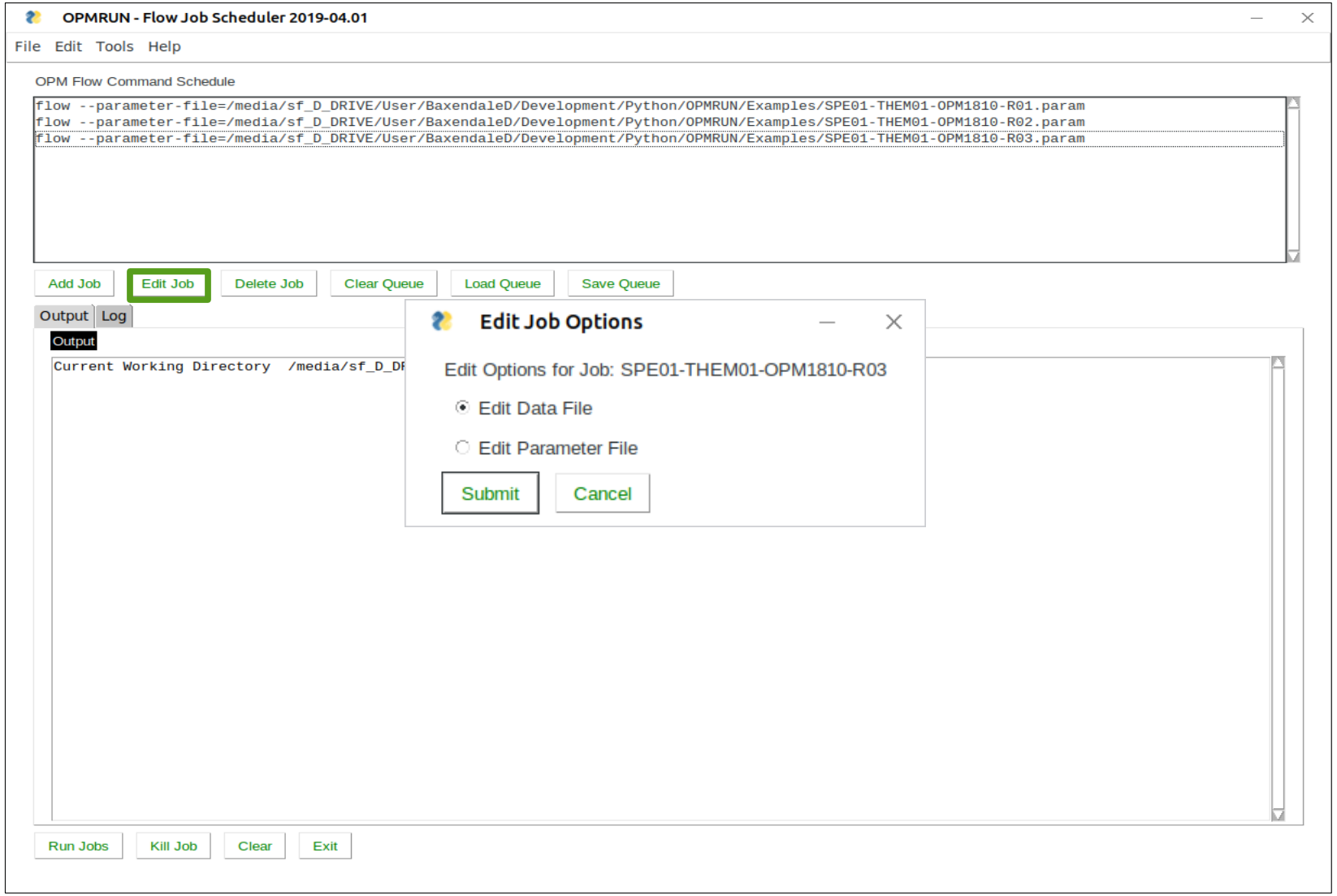
OPMRUN: Job Queue



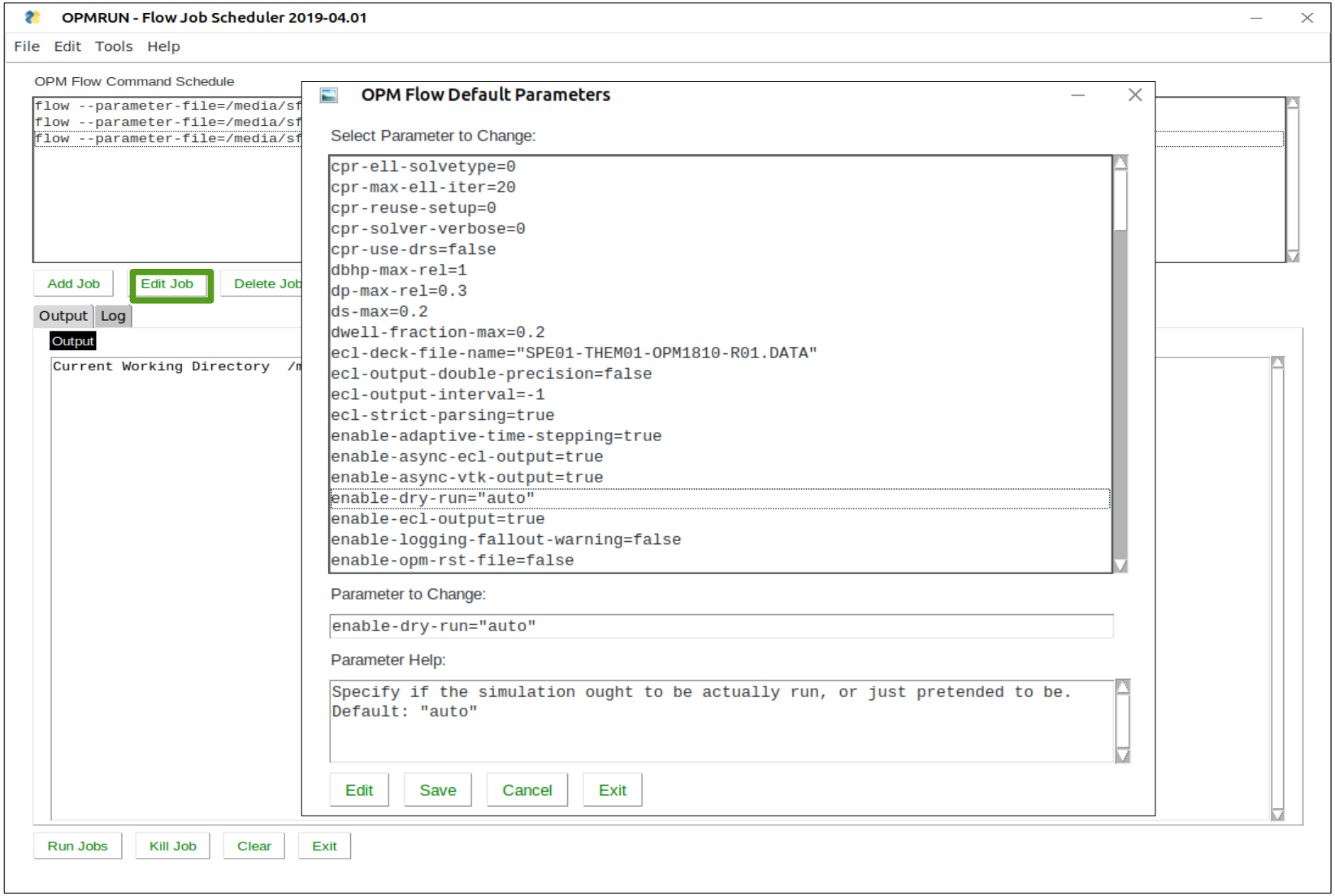
OPMRUN: Set Parameter Default Options



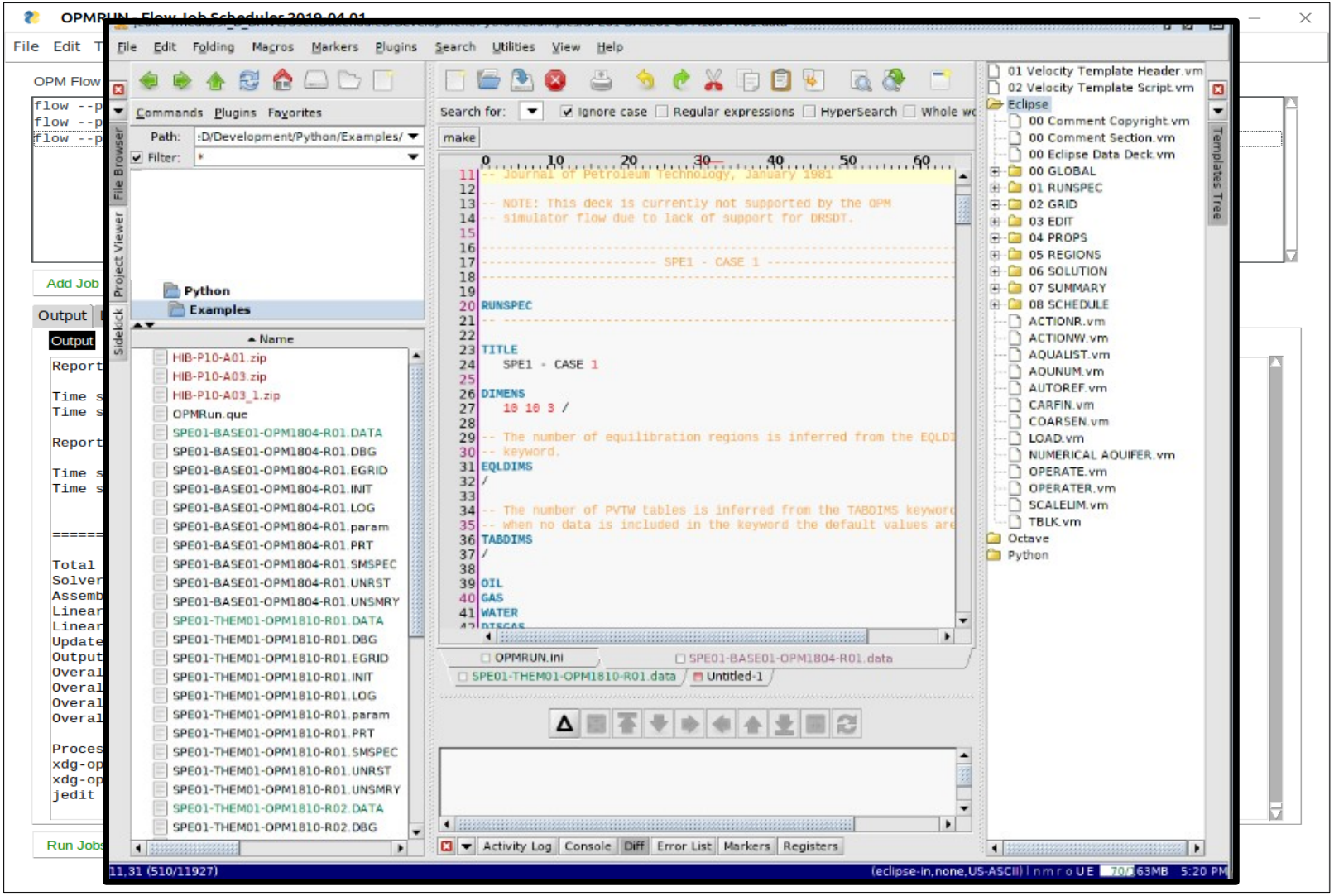
OPMRUN: Edit Job Data & Parameter File



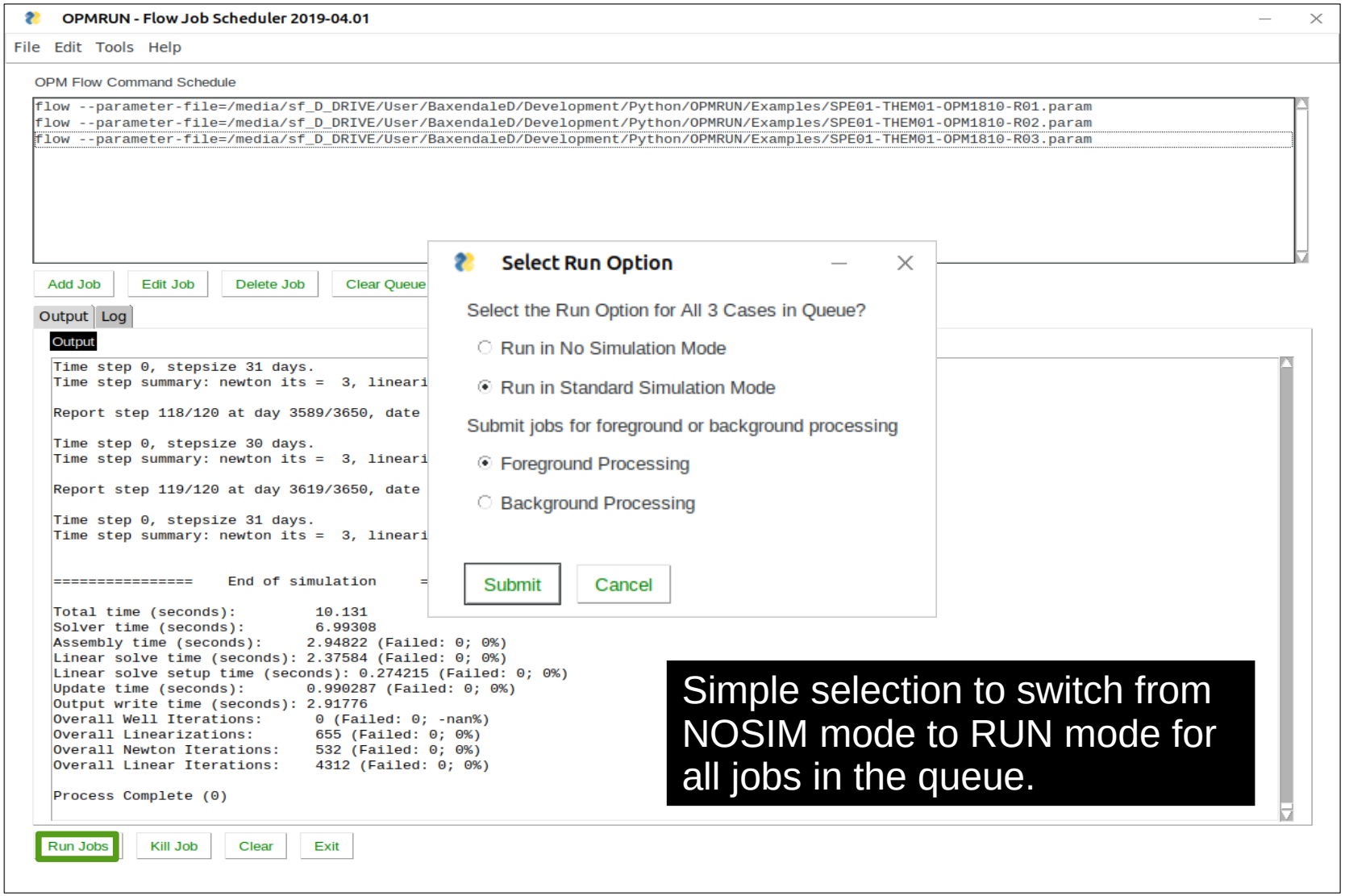
OPMRUN: Edit Parameter File With Help



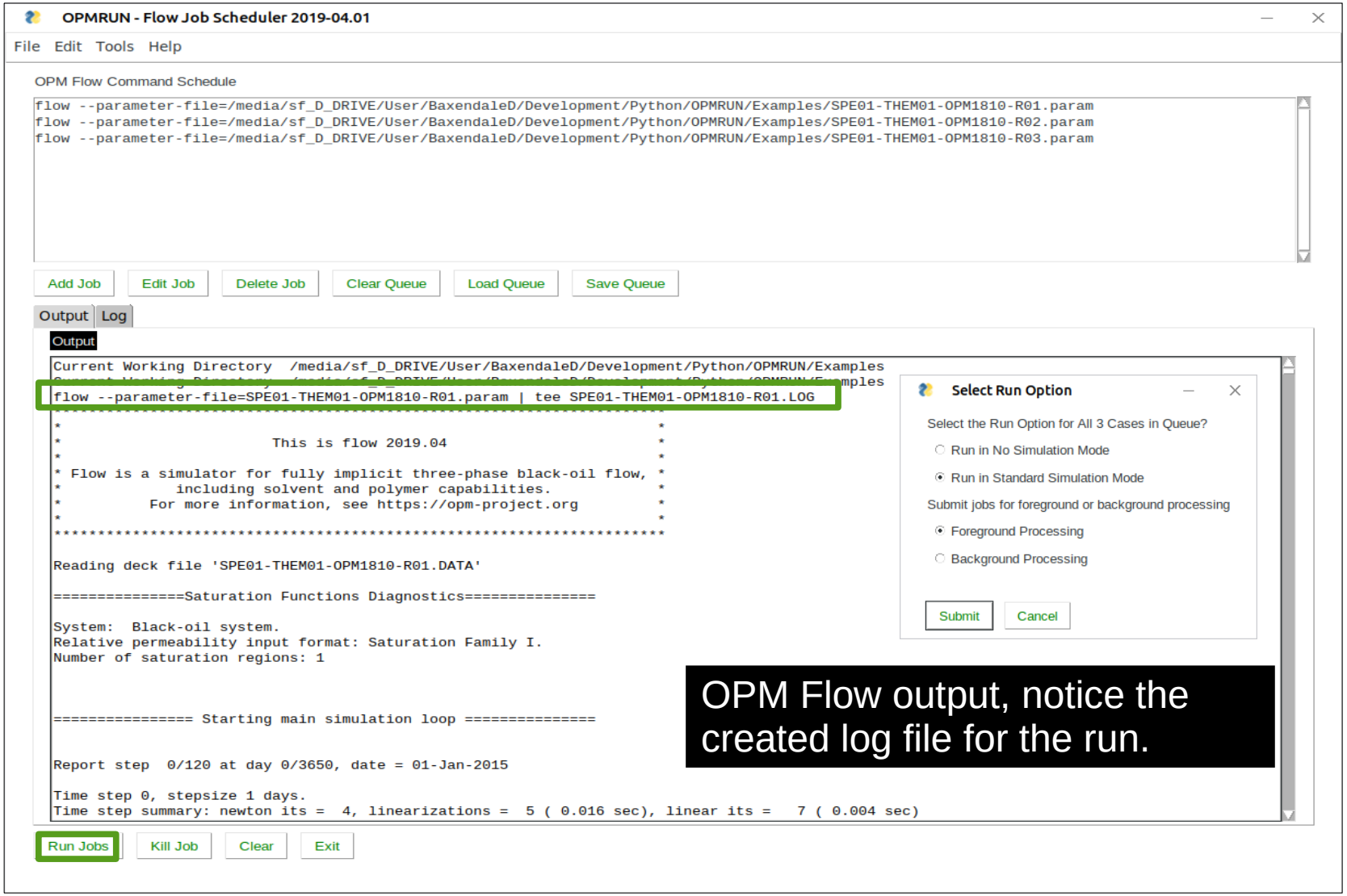
OPMRUN: Edit Data File



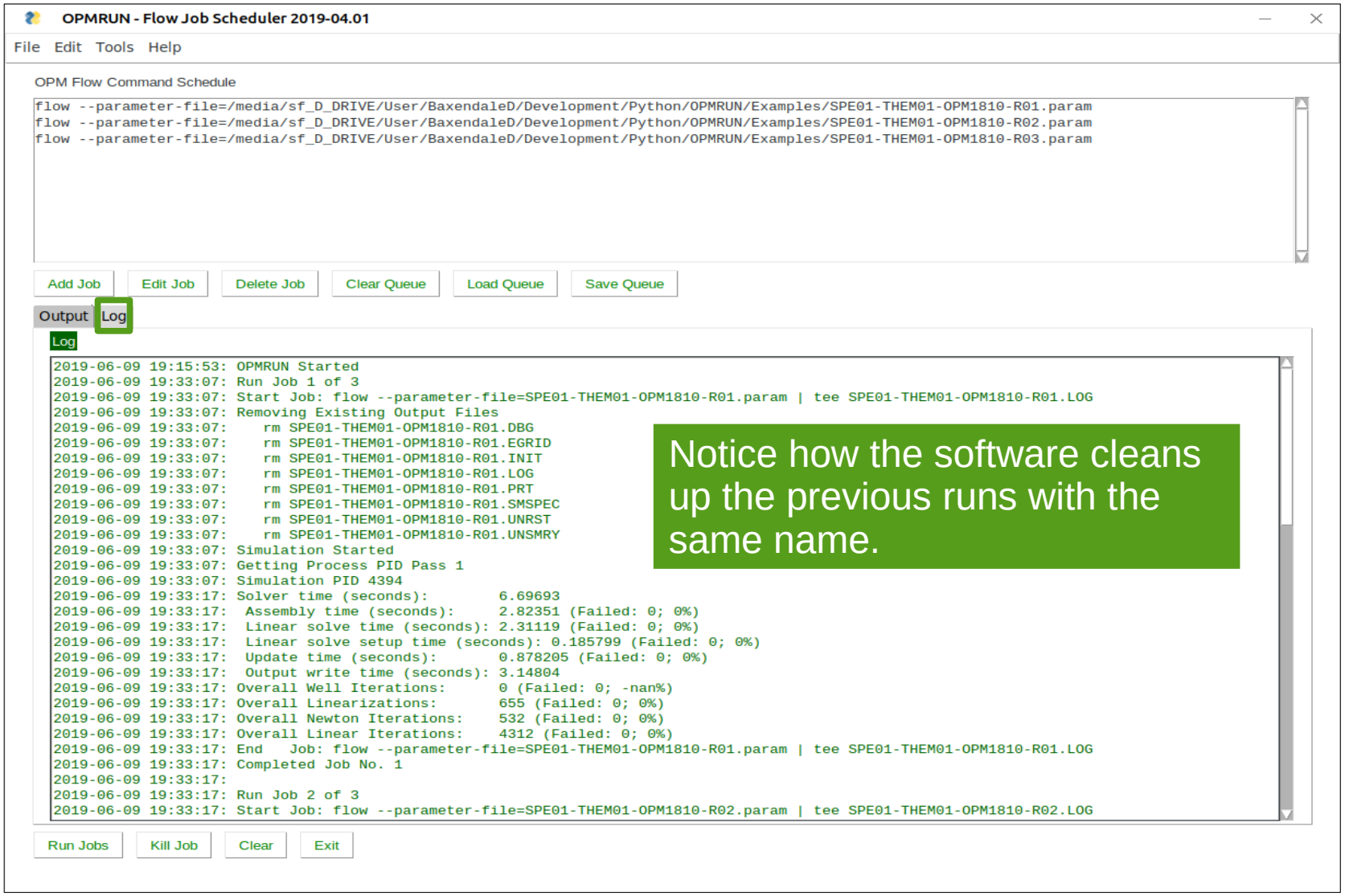
OPMRUN: Run Jobs In Queue Options



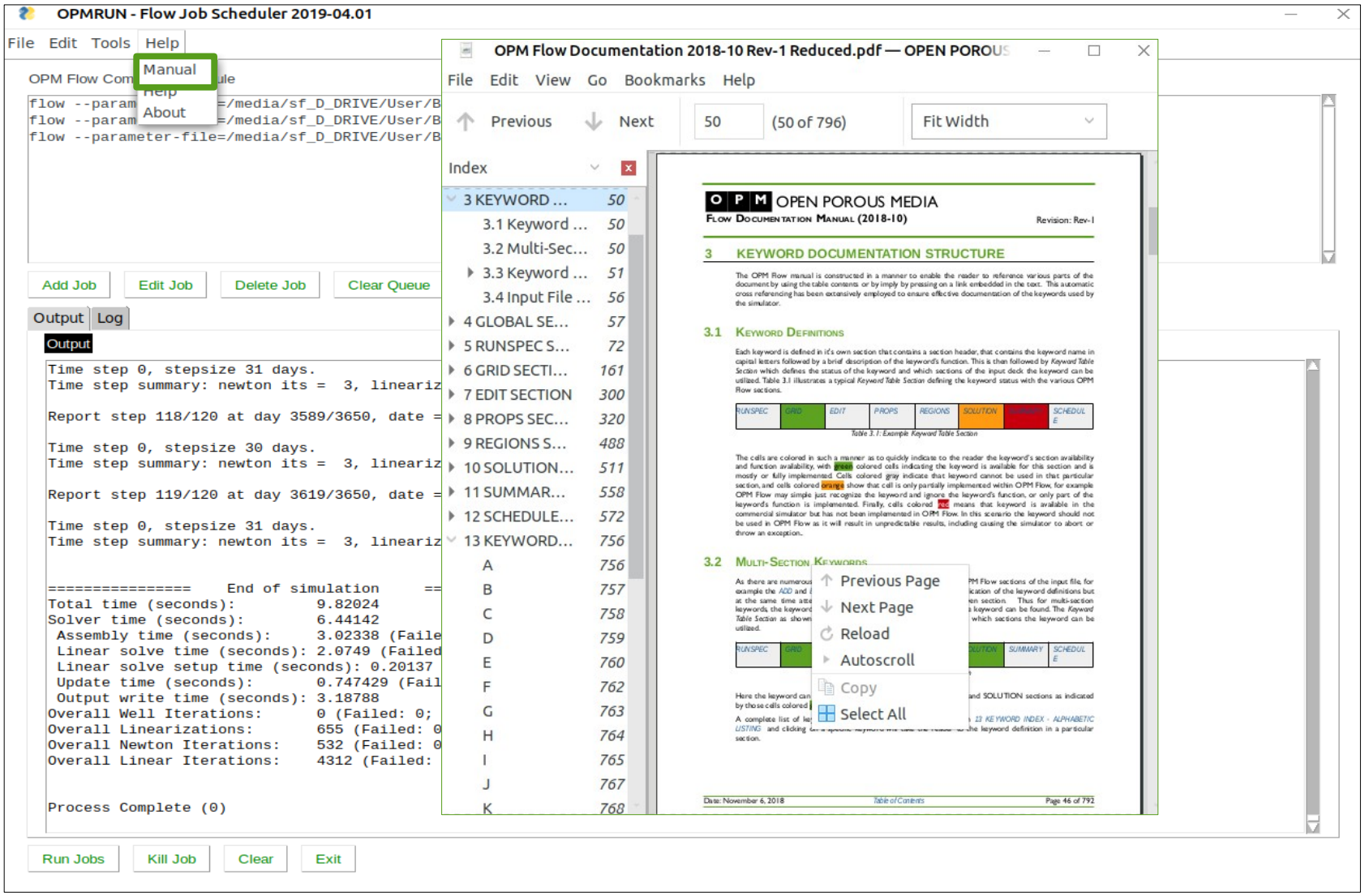
OPMRUN: Run Jobs In Queue Options



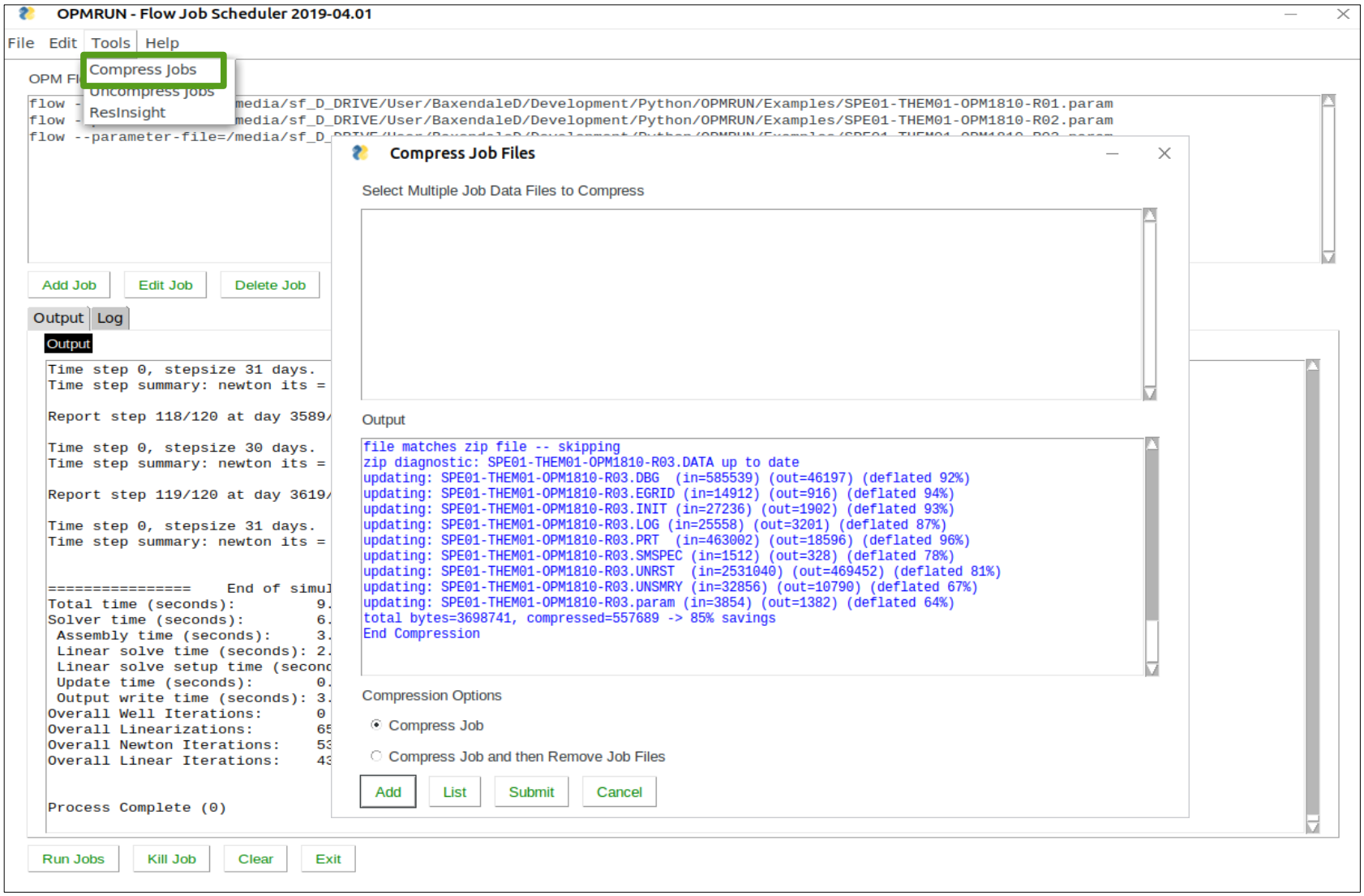
OPMRUN: Schedule Log For Tracking Progress



OPMRUN: Manual Available



OPMRUN: Job File Compression



OPMRUN: OPMRUN.INI Settings File

- Stored in user's home directory in sub directory OPM. Currently limited to:
  - Defining OPMRUN output panel's size, font and font size.
  - OPM Flow manual location,
  - ResInsight location,
  - Setting the editor command,
  - Defining project names and directories.
- Use the Edit/Options menu to edit options and Edit/Projects menu to edit project names and directories.

```
#
# OPMRUN Options File
#
# File Name   : "/home/david/OPM"
# Created By  : david
# Date Created: 2019-06-09 15:42:50
#
input-width=144
input-heigt=10
output-width=140
output-heigt=30
output-font=Courier
output-font-size=10
opm-flow-manual="/home/david/OPM/OPM Flow Documentation 2018-10 Rev-2 Reduced.pdf"
opm-resinsight="/usr/bin/ResInsight"
edit-command="jedit"
prj-name-01=OPM Examples
prj-dirc-01=/media/sf_D_DRIVE/User/BaxendaleD/Development/Python/OPMRUN/Examples
prj-name-02=Norne 2019-04
prj-dirc-02=/media/sf_D_DRIVE/Linux/OPM/Norne/2019-04/
prj-name-03=OPM Main Directory
prj-dirc-03=/media/sf_D_DRIVE/Linux/OPM
prj-name-04=OPM Manual Runs
prj-dirc-04=/media/sf_D_DRIVE/Linux/OPM/Aquifer
prj-name-05=None
prj-dirc-05=
#
# End of OPMRUN Options File
```

EIPC OPMRUN:What Is Next?

- Test on various Linux versions (binary version should work on all recent Linux distributions).
- Add more functionality:
  - Add a status tab to the bottom element with a table showing the project name, job name start time and end time, and job status (Aborted, Completed, Killed, Running, etc.).
  - Add right-click menu options to the status table to edit files, view results (DBG, LOG and PRT files), load results into ResInsight, etc.
  - Write job status files to update status table for both foreground and background jobs.
  - Add real time plotting panel to see how the run is performing.
  - Add progress bar showing the progress of each job, need the total number of days for the simulation.
- Improve code readability and documentation.
- Once stable eventually aim to be part of the OPM Flow distribution as a binary file.

End of Presentation