



palmrungui



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Overview

- By default, PALM runs are started via linux shell command line:

```
palmrn -r example_cbl -a "d3#" [...]
```
- Graphical user interface for palmrn can be used for simplified usage:

```
palmrngui
```
- palmrngui is automatically installed with palm (it requires additional packages: pyqt5, python3, see installation):
 - `pip install pyqt5`
 - `sudo apt-get install python3-pyqt5`
 - ...
- Start palmrngui from any place via the shell (it might be required to install xterm):

```
palmrngui &
```

Start Tools Help

Default **Advanced**

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Execution

Selected job: run_B2_sub035v2

Configuration: default

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode:

Allow restarts Use cyclic fill method
 Keep temporary data Read sky view factors from file
 Write sky view factors to file

Silent mode


Custom tag:

palmrun -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04

Browser

Browse at:



Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2**

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

palmrungui

Start Tools Help

Default Advanced

History of simulations (should be empty!)

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Browser

Browse at: /home/maronga/palm_23.04/JOBS/ Update (5 min)

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Execution

Selected job: run_B2_sub035v2

Configuration: default

Edit (re-)Build Full rebuild

Use pre-built source code

Cores: 4 Tasks per node: 4

Wallclock time (s): Queue:

Account: Wait for job:

Mode: Initial run

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

palmrn Silent mode Clear Quit Custom tag:

palmrn -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04

The screenshot shows the palmrungui web interface. At the top, there are tabs for 'Default' and 'Advanced'. The 'History' section on the left lists 'Recently submitted jobs' with two entries from 2023/08/08. The 'Execution' section contains various settings: 'Selected job' is 'run_B2_sub035v2', 'Configuration' is 'default', 'Cores' is 4, 'Tasks per node' is 4, and 'Mode' is 'Initial run'. The 'Available jobs' list in the center is highlighted with a blue box and an arrow pointing to it from above. The 'Browser' section on the right shows the current path as '/home/maronga/palm_23.04/JOBS/' and lists 'Input files' and 'User code'. The 'Monitoring files' section is empty. At the bottom, there are buttons for 'palmrun', 'Silent mode', 'Clear', and 'Quit', along with a 'Custom tag' field and a command line preview.

Start Tools Help

Default Advanced

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Browser

Browse at: /home/maronga/palm_23.04/JOBS/ Update (5 min)

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Execution

Selected job: run_B2_sub035v2

Configuration: default

Edit (re-)Build Full rebuild

Use pre-built source code

Cores: 4 Tasks per node: 4

Wallclock time (s): Queue:

Account: Wait for job:

Mode: Initial run

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

palmrun Silent mode Clear Quit Custom tag:

palmrun -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04

Start Tools Help

Default Advanced

Input files for the selected job

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Execution

Selected job:

Configuration:

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode:

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

Silent mode

Custom tag:

`palmrun -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"`

Browser

Browse at:

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

The screenshot shows the palmrungui web interface. At the top, there is a navigation bar with 'Start', 'Tools', and 'Help'. Below this, there are tabs for 'Default' and 'Advanced'. The main content area is divided into several sections:

- History:** A section titled 'History' with a sub-section 'Recently submitted jobs:' containing two entries: '2023/08/08 15:21: run_B2_sub035v2 (default)' and '2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)'.
- Execution:** A section for job configuration. It includes a 'Selected job:' dropdown set to 'run_B2_sub035v2', a 'Configuration:' dropdown set to 'default', and buttons for 'Edit', '(re-)Build', and 'Full rebuild'. There are also checkboxes for 'Use pre-built source code', 'Allow restarts', 'Keep temporary data', 'Use cyclic fill method', 'Read sky view factors from file', and 'Write sky view factors to file'. Input fields for 'Cores: 4', 'Tasks per node: 4', 'Wallclock time (s):', 'Queue:', 'Account:', and 'Wait for job:' are present.
- Browser:** A section for file management. It includes a 'Browse at:' field with the path '/home/maronga/palm_23.04/JOBs/', an 'Update (5 min)' button, and a 'pa|lm' logo. It is divided into three columns: 'Available jobs:', 'Input files:', and 'Output files:'.
 - Available jobs:** A list with 'run_B2_sub035_upgrade100v2' and 'run_B2_sub035v2' (highlighted).
 - Input files:** A list with '.directory (58 B)', 'run_B2_sub035v2_p3d (6 KB)', and 'run_B2_sub035v2_p3dr (4 KB)'. Below this is a 'User code:' section with a blue box containing: '.directory', 'land_surface_model_mod.f90', 'radiation_model_mod.f90', 'surface_mod.f90', and 'urban_surface_mod.f90'. An arrow points from the text 'User code for the selected job' to this box.
 - Output files:** An empty list.

At the bottom, there is a 'Monitoring files:' section and a footer with 'palmrun', 'Silent mode', 'Clear', 'Quit', 'Custom tag:', and 'PALM 23.04'. The command 'palmrun -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"' is displayed in the bottom left.

Monitoring files for the selected job

Start Tools Help

Default **Advanced**

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Browser

Browse at: Update (5 min)

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2**

Input files:

- directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Execution

Selected job:

Configuration:

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode:

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

Silent mode

Custom tag:

palmrungui -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04

palmrungui

Start Tools Help

Default Advanced

Output files for selected job

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Execution

Selected job:

Configuration:

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode:

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

Silent mode

Custom tag:

palmrn -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04

Browse at:

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Output files:

Use context dialog to create new / copy jobs

The screenshot displays the palmrungui application window. The interface is divided into several sections:

- History:** Shows recently submitted jobs, including 'run_B2_sub035v2 (default)' and 'run_B2_sub035_upgrade100v2 (default)'.
- Browser:** Contains a 'Browse at' field with the path 'file:/maronga/palm_23.04/JOBS/'. Below it, 'Available jobs' lists 'run_B2_sub035_upgrade100v2' and 'run_B2_sub035v2', with the latter highlighted. To the right, 'Input files' lists '.directory (58 B)', 'run_B2_sub035v2_p3d (6 KB)', and 'run_B2_sub035v2_p3dr (4 KB)'. 'Output files' is currently empty.
- Execution:** Features a 'Selected job' dropdown set to 'run_B2_sub035v2' and a 'Configuration' dropdown set to 'default'. It includes buttons for 'Edit', '(re-)Build', and 'Full rebuild', along with a checkbox for 'Use pre-built source code'. Resource settings include 'Cores: 4', 'Tasks per node: 4', 'Wallclock time (s):', 'Queue:', 'Account:', and 'Wait for job:'. A 'Mode' dropdown is set to 'Initial run'. There are also checkboxes for 'Allow restarts', 'Keep temporary data', 'Use cyclic fill method', 'Read sky view factors from file', and 'Write sky view factors to file'.
- Bottom Panel:** Contains a 'palmrungui' button, a 'Silent mode' checkbox, 'Clear' and 'Quit' buttons, and a 'Custom tag:' input field. The command line 'palmrungui -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"' is displayed, along with the version 'PALM 23.04'.

Start Tools Help

Default Advanced

Open selected files via context dialog ("right mouse click")

History

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Browse at: /home/marsogna/palm_23.04/JOBS/ Update (5 min)

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- directory (35 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Execution

Selected job: run_B2_sub035v2

Configuration: default

Edit (re-)Build Full rebuild

Use pre-built source code

Cores: 4 Tasks per node: 4

Wallclock time (s): Queue:

Account: Wait for job:

Mode: Initial run

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

palmrn Silent mode Clear Quit Custom tag:

palmrn -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4" PALM 23.04

Start Tools Help

Default **Advanced**

Settings for job execution

History Browser

Recently submitted jobs:

- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Browse at: Update (5 min)

Available jobs:

- run_B2_sub035_upgrade100v2
- run_B2_sub035v2**

Input files:

- .directory (58 B)
- run_B2_sub035v2_p3d (6 KB)
- run_B2_sub035v2_p3dr (4 KB)

Output files:

User code:

- .directory
- land_surface_model_mod.f90
- radiation_model_mod.f90
- surface_mod.f90
- urban_surface_mod.f90

Monitoring files:

Execution

Selected job:

Configuration: ▼

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode: ▼

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

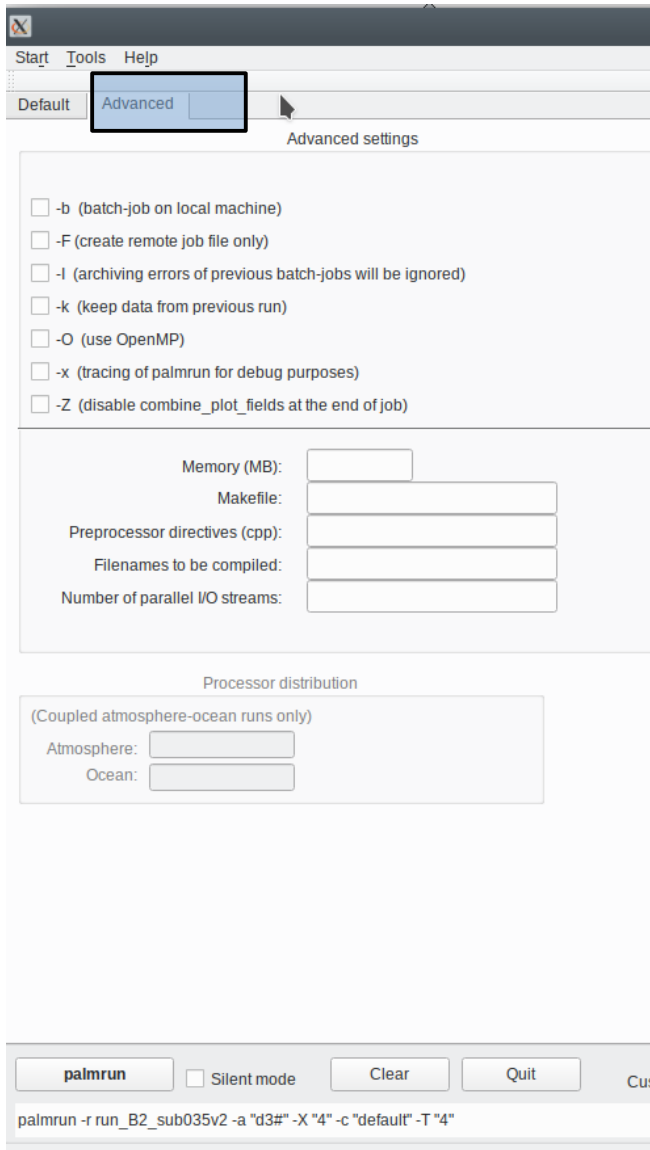
Write sky view factors to file

Silent mode

Custom tag:

palmrungui -r run_B2_sub035v2 -a "d3#" -X "4" -c "default" -T "4"

PALM 23.04



- Advanced setting:
be sure what you are doing...
see palmrn ?

- Execute PALM (= interactively or send job to queuing system) via button **palmrun**
- The bottom line shows the palmrun command. You could also directly execute this command in the shell!
- palmrun will be executed in separate window (xterm):

```

...
*** creating executable and other sources for
the remote host
*** nothing to compile for this run
*** executable and other sources created

*** submit the job

--> palmrun finished

--> Press enter to continue...

```

Wait for results in output file list...

History

Recently submitted jobs:

- 2023/08/08 15:33: example_cbl (default)
- 2023/08/08 15:21: run_B2_sub035v2 (default)
- 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default)

Execution

Selected job:

Configuration:

Full rebuild

Use pre-built source code

Cores: Tasks per node:

Wallclock time (s): Queue:

Account: Wait for job:

Mode:

Allow restarts Use cyclic fill method

Keep temporary data Read sky view factors from file

Write sky view factors to file

Browser

Browse at:

Available jobs:

- example_cbl
- run_B2_sub035_upgrade100v2
- run_B2_sub035v2

Input files:

- example_cbl_p3d (4 KB)

User code:

Monitoring files:

- example_cbl_cpu.000 (3 KB)
- example_cbl_header.000 (7 KB)
- example_cbl_parin.000 (4 KB)
- example_cbl_rc.000 (31 KB)
- example_cbl_rc.001 (31 KB)
- example_cbl_stdout.000 (10 KB)

Output files:

- example_cbl_av_xz.000.nc (9 KB)
- example_cbl_pr.000.nc (7 KB)
- example_cbl_ts.000.nc (16 KB)
- example_cbl_xy.000.nc (53 KB)
- example_cbl_xz.000.nc (29 KB)

Buttons: Silent mode Custom tag:

Command: palmrun -r example_cbl -a "d3#" -X "4" -c "default" -T "4"

Version: PALM 23.04

Open files, e.g. via ncview

The screenshot displays the palmrungui web interface. At the top, there is a navigation bar with 'Start', 'Tools', and 'Help'. Below this, the interface is divided into several sections:

- History:** A list of recently submitted jobs, including 'example_cbl (default)', 'run_B2_sub035v2 (default)', and 'run_B2_sub035_upgrade100v2 (default)'.
- Execution:** Configuration options for the selected job 'example_cbl'. It includes a 'Configuration' dropdown set to 'default', buttons for 'Edit', '(re-)Build', and 'Full rebuild', a checkbox for 'Use pre-built source code', input fields for 'Cores: 4' and 'Tasks per node: 4', 'Wallclock time (s):', 'Queue:', 'Account:', and 'Wait for job:', and a 'Mode' dropdown set to 'Initial run'. There are also checkboxes for 'Allow restarts', 'Keep temporary data', 'Use cyclic fill method', 'Read sky view factors from file', and 'Write sky view factors to file'.
- Browser:** A section for browsing files. It shows the path '/home/maronga/palm_23.04/JOBS/'. Below this are three panels:
 - Available jobs:** A list of jobs including 'example_cbl', 'run_B2_sub035_upgrade100v2', and 'run_B2_sub035v2'.
 - Input files:** A list of input files including 'example_cbl_p3d (4 KB)'.
 - Output files:** A list of output files including 'example_cbl_av_xz.000.nc (9 KB)', 'example_cbl_pr.000.nc (7 KB)', 'example_cbl_ts.000.nc (16 KB)', 'example_cbl_xy.000.nc (53 KB)', and 'example_cbl_xz.000.nc (29 KB)'. This panel is highlighted with a blue box and an arrow pointing to it from the text 'Open files, e.g. via ncview'.
- Monitoring files:** A list of monitoring files including 'example_cbl_cpu.000 (3 KB)', 'example_cbl_header.000 (7 KB)', 'example_cbl_parin.000 (4 KB)', 'example_cbl_rc.000 (31 KB)', 'example_cbl_rc.001 (31 KB)', and 'example_cbl_stdout.000 (10 KB)'.

At the bottom of the interface, there are buttons for 'palmrun', 'Silent mode', 'Clear', and 'Quit', along with a 'Custom tag:' input field. The command line at the bottom reads: 'palmrun -r example_cbl -a "d3#" -X "4" -c "default" -T "4"'. The bottom right corner shows 'PALM 23.04'.

Check monitoring files

The screenshot shows the palmrungi web interface with the following sections:

- History:** Recently submitted jobs: 2023/08/08 15:33: example_cbl (default), 2023/08/08 15:21: run_B2_sub035v2 (default), 2023/08/08 15:21: run_B2_sub035_upgrade100v2 (default).
- Execution:** Selected job: example_cbl, Configuration: default, Cores: 4, Tasks per node: 4, Mode: Initial run.
- Browser:** Browse at: /home/maronga/palm_23.04/JOBS/
- Available jobs:** example_cbl, run_B2_sub035_upgrade100v2, run_B2_sub035v2.
- Input files:** example_cbl_p3d (4 KB).
- Output files:** example_cbl_av_xz.000.nc (9 KB), example_cbl_pr.000.nc (7 KB), example_cbl_ts.000.nc (16 KB), example_cbl_xy.000.nc (53 KB), example_cbl_xz.000.nc (29 KB).
- Monitoring files:** example_cbl_cpu.000 (3 KB), example_cbl_header.000 (7 KB), example_cbl_parin.000 (4 KB), example_cbl_rc.000 (31 KB), example_cbl_rc.001 (31 KB), example_cbl_stdout.000 (10 KB).

Advantages

- Extremely easy job mangement
- History of all submitted jobs (inculding failed ones)
- You can save a default configuration
- Quick overview of all related files for a job
- Works well for local and remote job submission
- Recommended during testing phase

Limitations

- Output files will only be displayed if you run PALM locally or if you transfer data (automatically) to your local JOBS/OUTPUT directory (check .palm.iofiles configuration)
- Remote job chains do not work properly at the moment
→ Call of palmrungui might be required on compute host