# Particle Operators

bpy.ops.particle.**brush_edit(*, stroke=None, pen_flip=False)**

Apply a stroke of brush to the particles

**PARAMETERS:**

- **stroke** (`bpy_prop_collection` of `OperatorStrokeElement`, (optional)) – Stroke
- **pen_flip** (*boolean, (optional)*) – Pen Flip, Whether a tablet's eraser mode is being used

bpy.ops.particle.**connect_hair(*, all=False)**

Connect hair to the emitter mesh

**PARAMETERS:**

**all** (*boolean, (optional)*) – All Hair, Connect all hair systems to the emitter mesh

bpy.ops.particle.**copy_particle_systems(*, space='OBJECT', remove_target_particles=True, use_active=False)**

Copy particle systems from the active object to selected objects

**PARAMETERS:**

- **space** (*enum in ['OBJECT', 'WORLD'], (optional)*) –
  Space, Space transform for copying from one object to another
  - `OBJECT` Object – Copy inside each object's local space.
  - `WORLD` World – Copy in world space.
- **remove_target_particles** (*boolean, (optional)*) – Remove Target Particles, Remove particle systems on the target objects
- **use_active** (*boolean, (optional)*) – Use Active, Use the active particle system from the context

bpy.ops.particle.**delete(*, type='PARTICLE')**

Delete selected particles or keys

**PARAMETERS:**

**type** (*enum in ['PARTICLE', 'KEY'], (optional)*) – Type, Delete a full particle or only keys

bpy.ops.particle.**disconnect_hair(*, all=False)**

Disconnect hair from the emitter mesh

**PARAMETERS:**

**all** (*boolean, (optional)*) – All Hair, Disconnect all hair systems from the emitter mesh

bpy.ops.particle.**duplicate_particle_system(*, use_duplicate_settings=False)**

Duplicate particle system within the active object

**PARAMETERS:**

**use_duplicate_settings** (*boolean, (optional)*) – Duplicate Settings, Duplicate settings as well, so the new particle system uses its own settin

bpy.ops.particle.**dupliob_copy()**

Duplicate the current instance object

bpy.ops.particle.**dupliob_move_down()**

Move instance object down in the list

bpy.ops.particle.**dupliob_move_up()**

Move instance object up in the list

bpy.ops.particle.**dupliob_refresh()**

bpy.ops.particle.**duplicate_refresh()**

Refresh list of instance objects and their weights

bpy.ops.particle.**dupliob_remove()**

Remove the selected instance object

bpy.ops.particle.**edited_clear()**

Undo all edition performed on the particle system

bpy.ops.particle.**hair_dynamics_preset_add(*, name='', remove_name=False, remove_active=False)**

Add or remove a Hair Dynamics Preset

**PARAMETERS:**

- **name** (*string, (optional, never None)*) – Name, Name of the preset, used to make the path name
- **remove_name** (*boolean, (optional)*) – remove_name
- **remove_active** (*boolean, (optional)*) – remove_active

**FILE:**

startup/bl_operators/presets.py:119

bpy.ops.particle.**hide(*, unselected=False)**

Hide selected particles

**PARAMETERS:**

**unselected** (*boolean, (optional)*) – Unselected, Hide unselected rather than selected

bpy.ops.particle.**mirror()**

Duplicate and mirror the selected particles along the local X axis

bpy.ops.particle.**new()**

Add new particle settings

bpy.ops.particle.**new_target()**

Add a new particle target

bpy.ops.particle.**particle_edit_toggle()**

Toggle particle edit mode

bpy.ops.particle.**rekey(*, keys_number=2)**

Change the number of keys of selected particles (root and tip keys included)

**PARAMETERS:**

**keys_number** (*int in [2, inf], (optional)*) – Number of Keys

bpy.ops.particle.**remove_doubles(*, threshold=0.0002)**

Remove selected particles close enough of others

**PARAMETERS:**

**threshold** (*float in [0, inf], (optional)*) – Merge Distance, Threshold distance within which particles are removed

bpy.ops.particle.**reveal(*, select=True)**

Show hidden particles

**PARAMETERS:**

**select** (*boolean, (optional)*) – Select

bpy.ops.particle.**select_all(*, action='TOGGLE')**

(De)select all particles' keys

**PARAMETERS:**

**action** (*enum in ['TOGGLE', 'SELECT', 'DESELECT', 'INVERT'], (optional)*) –

Action, Selection action to execute

- `TOGGLE` Toggle – Toggle selection for all elements.
- `SELECT` Select – Select all elements.
- `DESELECT` Deselect – Deselect all elements.
- `INVERT` Invert – Invert selection of all elements.

bpy.ops.particle.**select_less()**

Deselect boundary selected keys of each particle

bpy.ops.particle.**select_linked()**

Select all keys linked to already selected ones

bpy.ops.particle.**select_linked_pick(*, deselect=False, location=(0, 0))**

Select nearest particle from mouse pointer

**PARAMETERS:**

- **deselect** (*boolean, (optional)*) – Deselect, Deselect linked keys rather than selecting them
- **location** (*int array of 2 items in [0, inf], (optional)*) – Location

bpy.ops.particle.**select_more()**

Select keys linked to boundary selected keys of each particle

bpy.ops.particle.**select_random(*, ratio=0.5, seed=0, action='SELECT', type='HAIR')**

Select a randomly distributed set of hair or points

**PARAMETERS:**

- **ratio** (*float in [0, 1], (optional)*) – Ratio, Portion of items to select randomly
- **seed** (*int in [0, inf], (optional)*) – Random Seed, Seed for the random number generator
- **action** (*enum in ['SELECT', 'DESELECT'], (optional)*) –
  Action, Selection action to execute
  - `SELECT` Select – Select all elements.
  - `DESELECT` Deselect – Deselect all elements.
- **type** (*enum in ['HAIR', 'POINTS'], (optional)*) – Type, Select either hair or points

bpy.ops.particle.**select_roots(*, action='SELECT')**

Select roots of all visible particles

**PARAMETERS:**

**action** (*enum in ['TOGGLE', 'SELECT', 'DESELECT', 'INVERT'], (optional)*) –

Action, Selection action to execute

- `TOGGLE` Toggle – Toggle selection for all elements.
- `SELECT` Select – Select all elements.
- `DESELECT` Deselect – Deselect all elements.
- `INVERT` Invert – Invert selection of all elements.

bpy.ops.particle.**select_tips(*, action='SELECT')**

Select tips of all visible particles

**PARAMETERS**

**PARAMETERS:**

**action** (*enum in ['TOGGLE', 'SELECT', 'DESELECT', 'INVERT'], (optional)*) –

Action, Selection action to execute

- `TOGGLE` Toggle – Toggle selection for all elements.
- `SELECT` Select – Select all elements.
- `DESELECT` Deselect – Deselect all elements.
- `INVERT` Invert – Invert selection of all elements.

bpy.ops.particle.**shape_cut()**

Cut hair to conform to the set shape object

bpy.ops.particle.**subdivide()**

Subdivide selected particles segments (adds keys)

bpy.ops.particle.**target_move_down()**

Move particle target down in the list

bpy.ops.particle.**target_move_up()**

Move particle target up in the list

bpy.ops.particle.**target_remove()**

Remove the selected particle target

bpy.ops.particle.**unify_length()**

Make selected hair the same length

bpy.ops.particle.**weight_set(*, factor=1.0)**

Set the weight of selected keys

**PARAMETERS:**

**factor** (*float in [0, 1], (optional)*) – Factor, Interpolation factor between current brush weight, and keys' weights