Ros-Bot
Introduction to density concepts

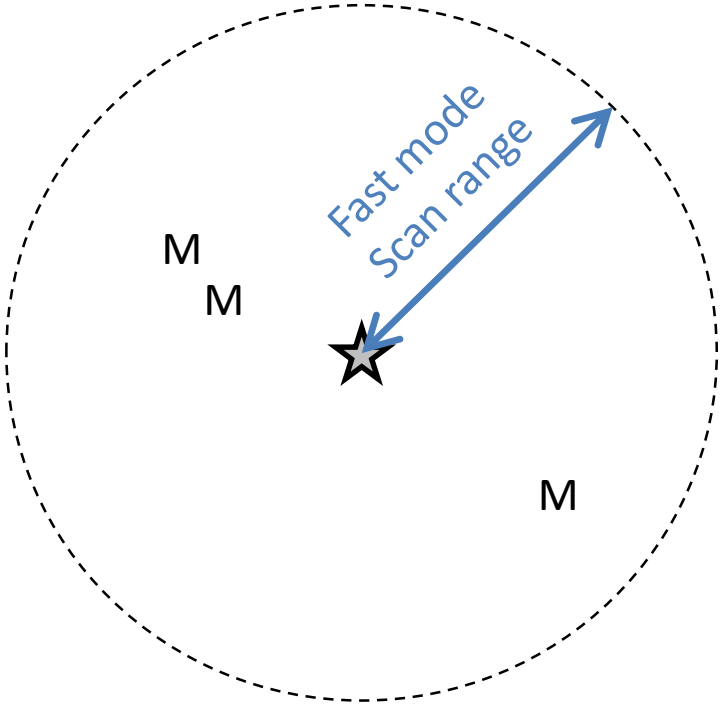
FastMode, density algorithms

FastMode

- Goal
  - Focus on dense contextes
  - Skip non-dense contextes
- Can be user-activated for sequences
  - Rift → FastRift
  - Bounties → FastBounties
  - UberKeys → FastHunt
- Customisable
  - File Menu > FastMode settings
    - Scan distance
    - Set of density weights
    - Density limit for activation/deactivation

Context 1

Type	Weight
M: normal monster	2
E: elite	10
G: goblin	15
B: big guy	20
Density limit	20



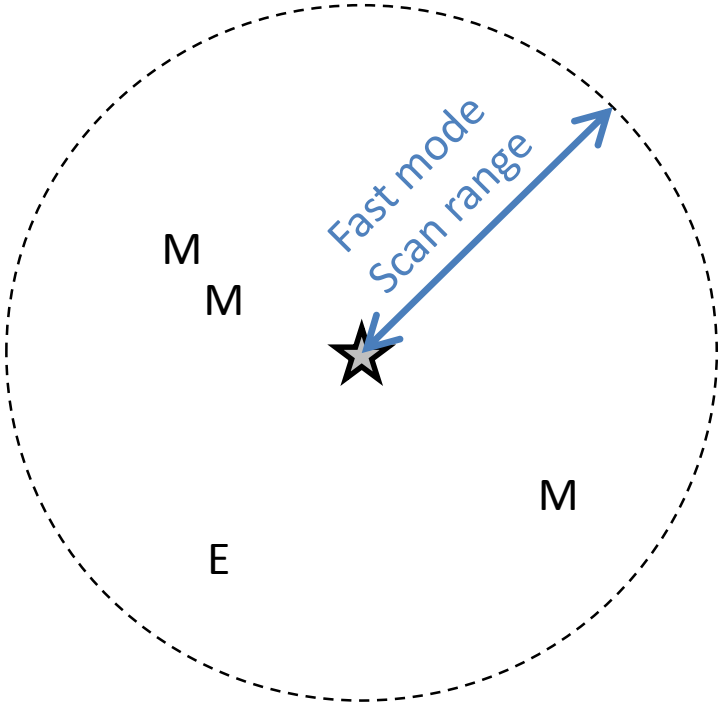
Total density = 6

3 * M < Density Limit

=> FastMode is not deactivated, exploration goes on

Context 2

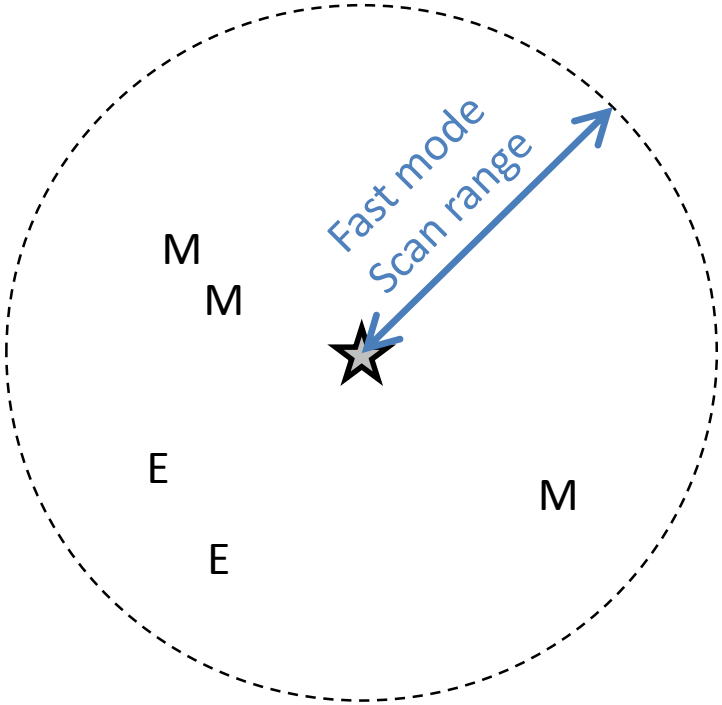
Type	Weight
M: normal monster	2
E: elite	10
G: goblin	15
B: big guy	20
Density limit	20



Total density = 16
3 * M + 1 * E
< Density Limit
=> FastMode is not deactivated, exploration goes on

Context 3

Type	Weight
M: normal monster	2
E: elite	10
G: goblin	15
B: big guy	20
Density limit	20



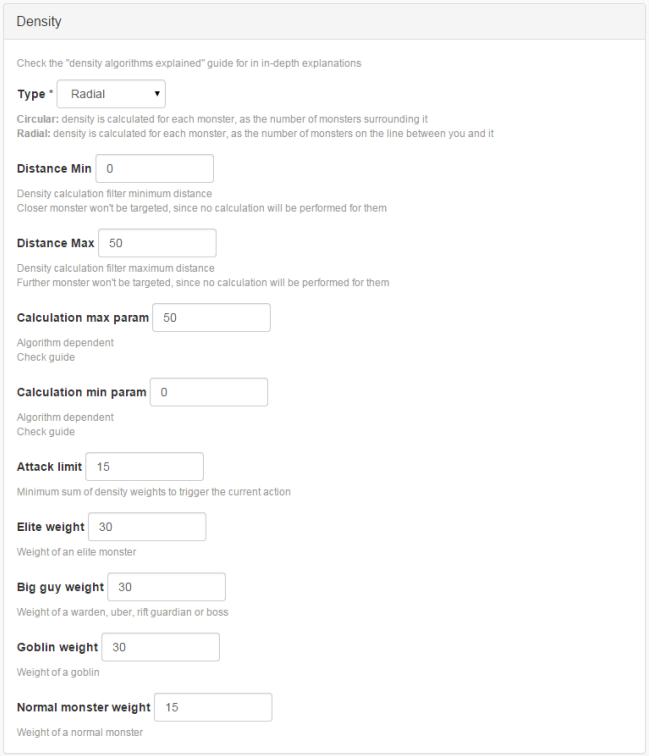
Total density = 26
3 * M + 2 * E
> Density Limit
=> FastMode is deactivated, exploration stops, bot starts fighting routines

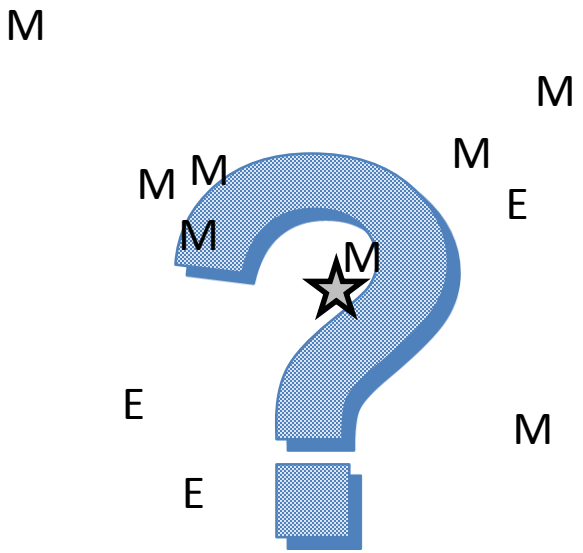
Density algorithms

- Introduce targeting priority
- User-defined for each custom script action
  - 4 algorithms
    - Circular, Radial, Surrounding, Angular
  - Filter distances
  - Algorithms dependent parameters
  - Set of density weights
    - Normal monsters, elites, goblins, big guys

Note: Followings drawings are simplified explanations of the algorithms

Targeting priority





By affecting weights to mobs, density based actions allow you to tell the bot which mob to focus on (let's given context is dense enough to deactivate FastMode)

Targeting priority

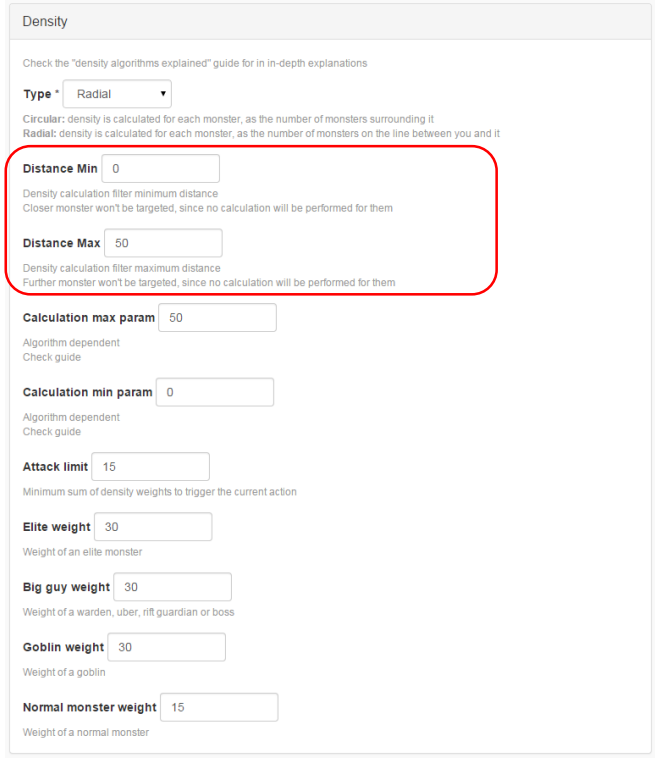
A few tips

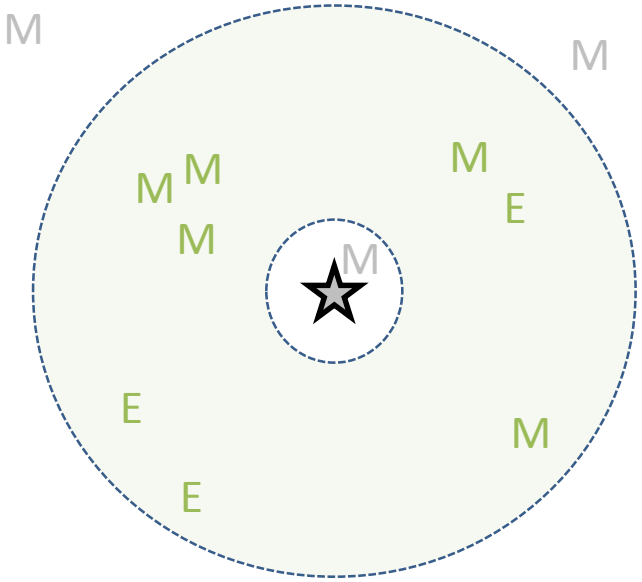
- For a specific action, if there is **NO** monster with a density higher than the ***attack limit*** parameter, the action is **NOT** triggered (*)

(*) Action is skipped. Next action of the custom script to be evaluated

- Min Distance and Min Param are usually kept to 0
- Radial is mostly associated with :
  - Furious charge
  - Elemental Arrow
- Circular is mostly associated with :
  - Cluster arrow
- Surrounding density is centered on you
  - Does not use Min Param and Max Param

Targeting priority



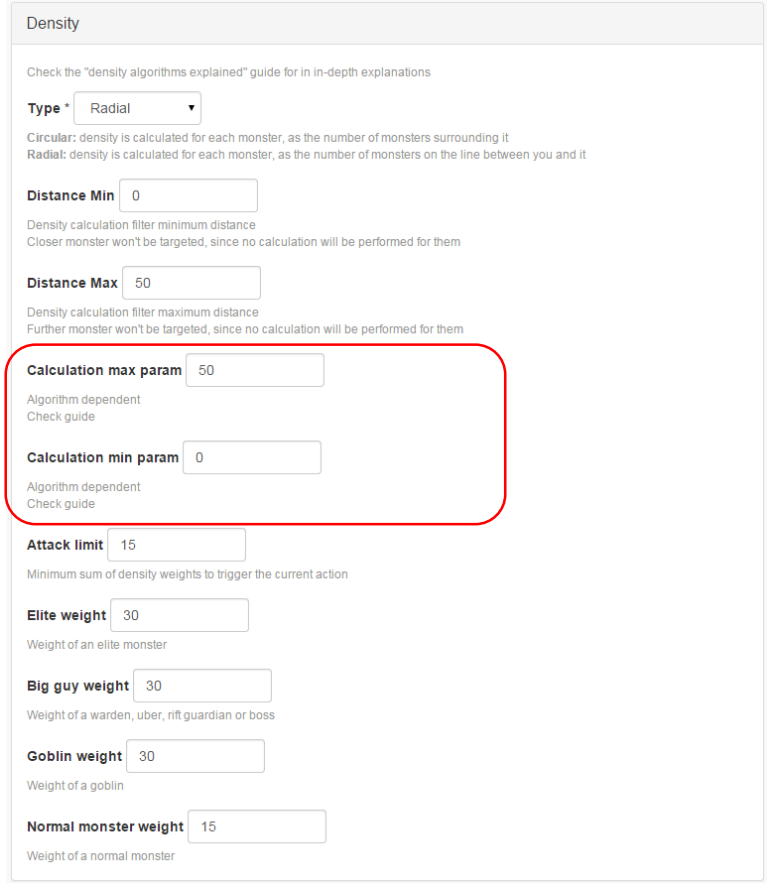


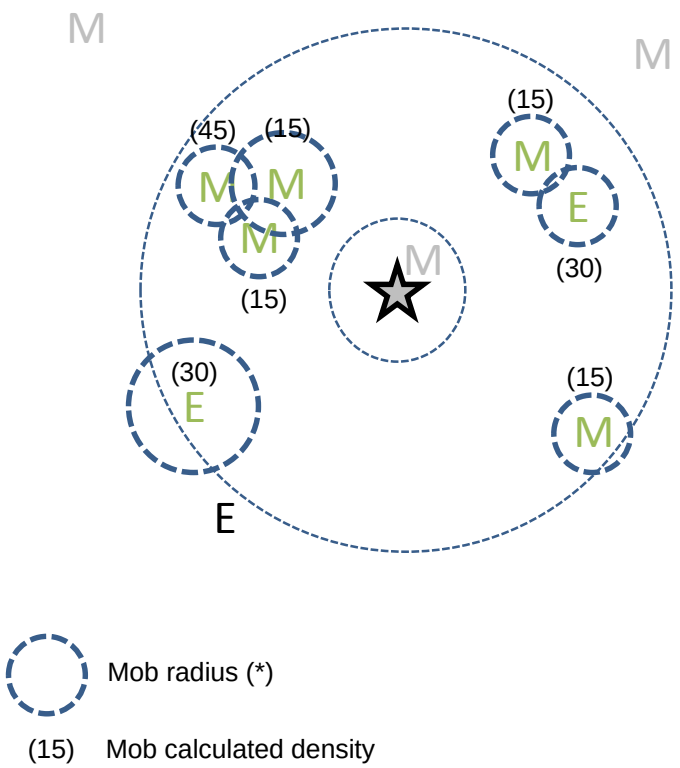
1. Filtering according to Distance Min and Distance Max

Filtering is applied for all type of algorithms

Mobs outside filter area have no density calculation performed

Targeting priority (radial)



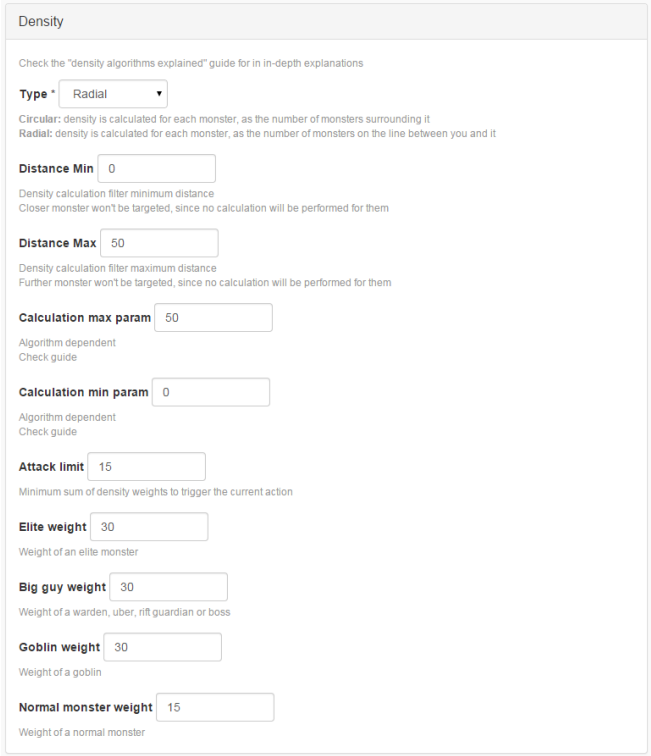


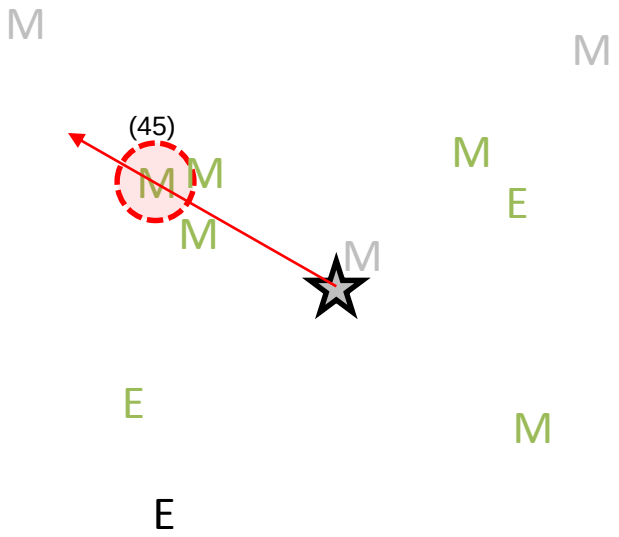
2. Performing calculation

Calculation is performed for each non-filtered monster as the sum of mobs located on the line between you and the monster **AND** between Min Param circle and Max Param circle

(*) Mob radius is different for each mob and **NOT** customizable

Targeting priority (radial)

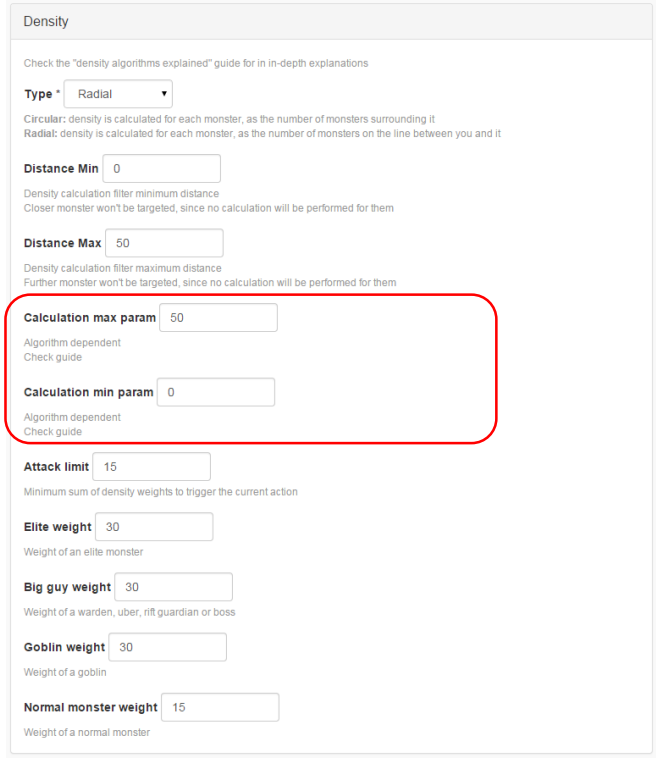


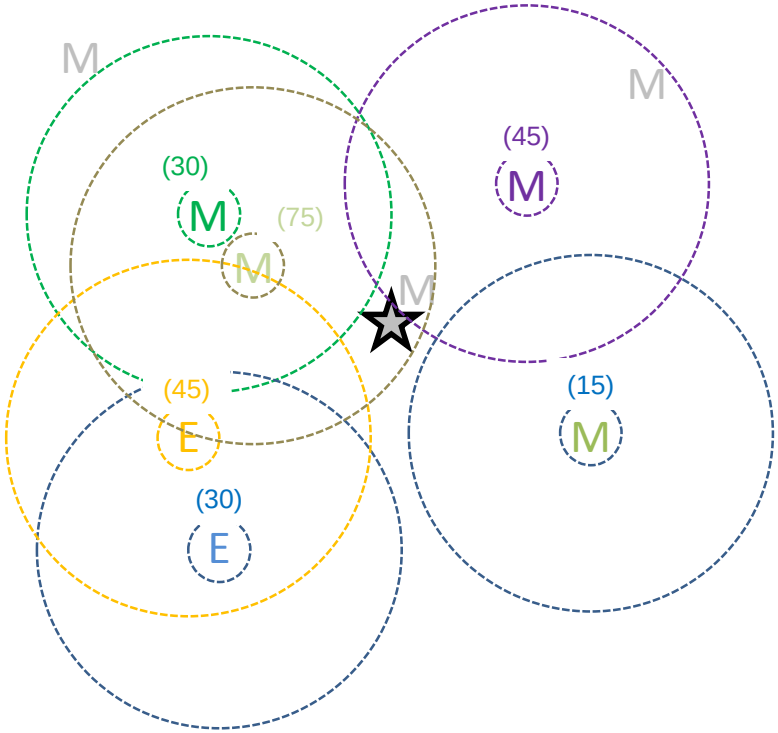


3. Choosing a monster

Bot always chooses densest mob. If several, it picks the furthest.

Targeting priority (circular)





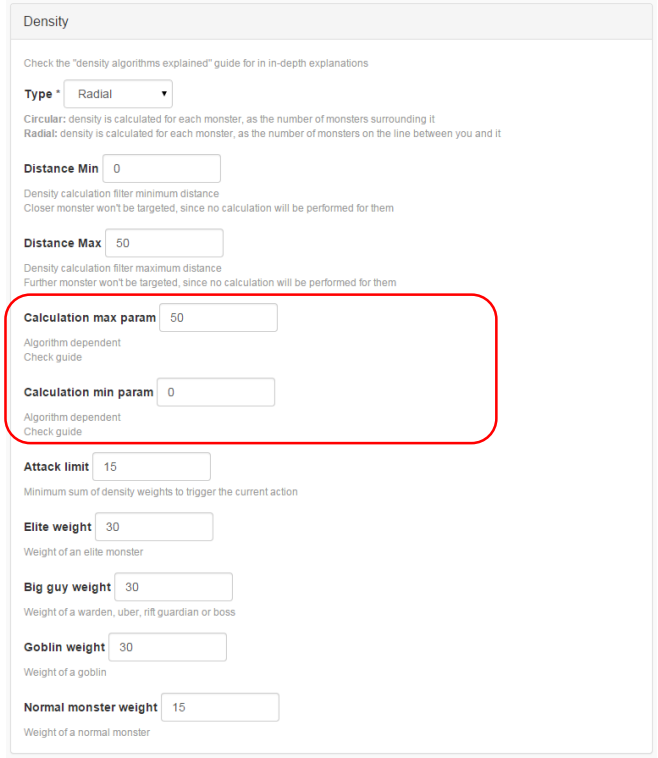
Min Param = 0. Circles are shown but not used in this case

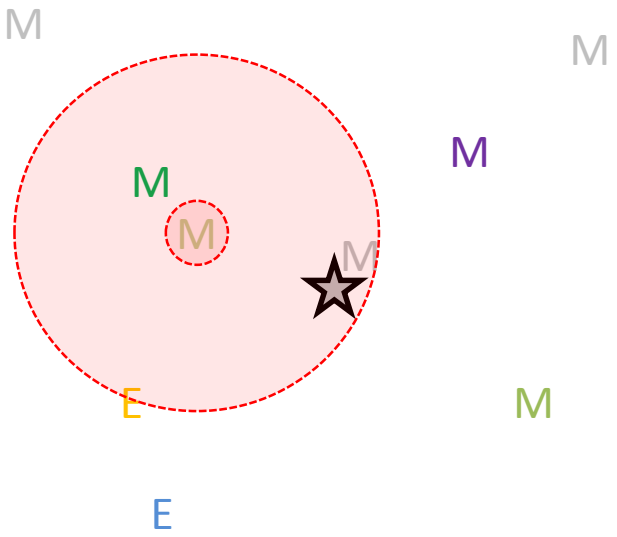
(15) Mob calculated density

2. Performing calculation

Calculation is performed for each non-filtered monster as the sum of mobs located around the monster (within Min Param and Max Param circles)

Targeting priority (circular)





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