

Ros-Bot

Introduction to density concepts

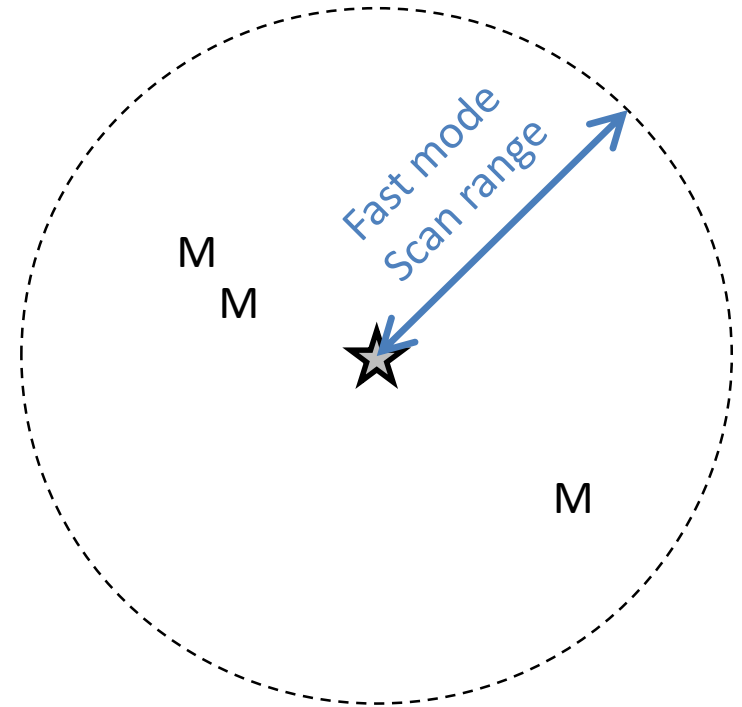
FastMode, density algorithms

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 |



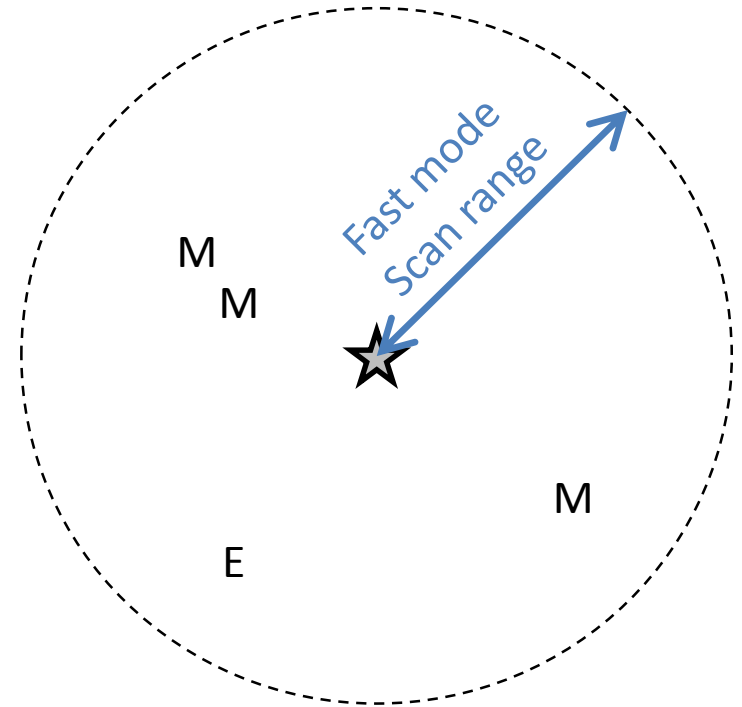
Total density = 6

$3 * M < \text{Density Limit}$

=> 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

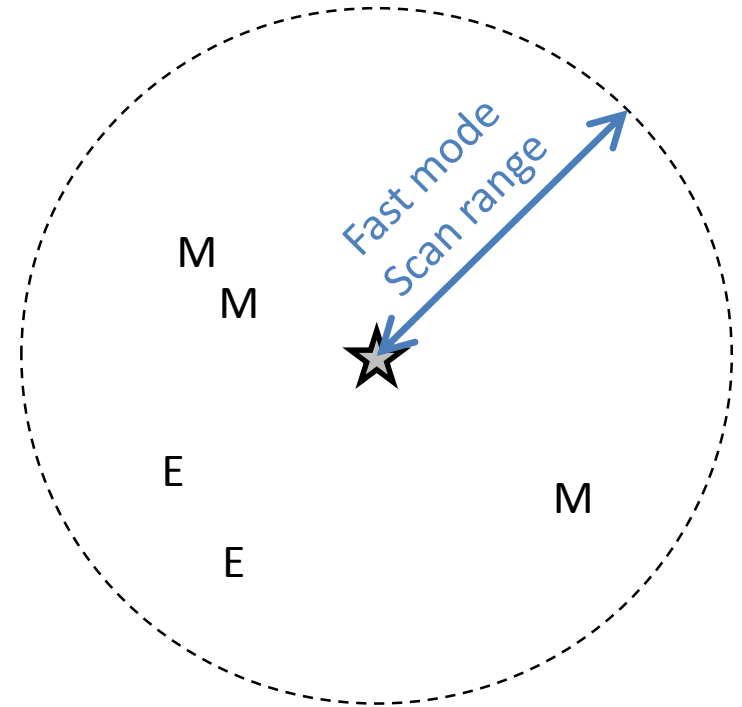
$3 * M + 1 * E$

< 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

Density

Check the "density algorithms explained" guide for in-depth explanations

Type

Circular: density is calculated for each monster, as the number of monsters surrounding it
Radial: density is calculated for each monster, as the number of monsters on the line between you and it

Distance Min

Density calculation filter minimum distance
Closer monster won't be targeted, since no calculation will be performed for them

Distance Max

Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param

Algorithm dependent
Check guide

Calculation min param

Algorithm dependent
Check guide

Attack limit

Minimum sum of density weights to trigger the current action

Elite weight

Weight of an elite monster

Big guy weight

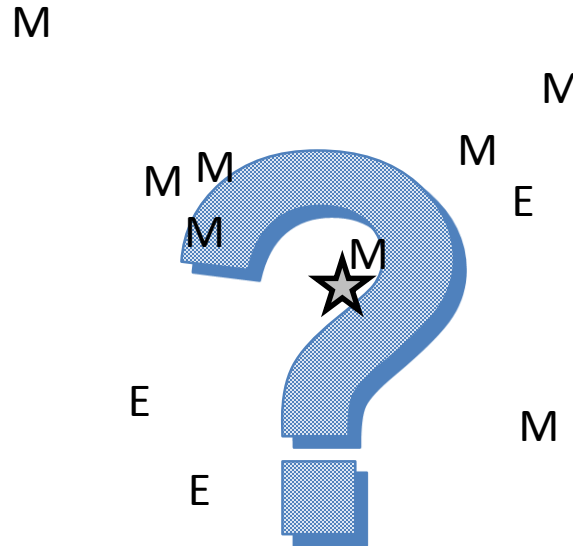
Weight of a warden, uber, rft guardian or boss

Goblin weight

Weight of a goblin

Normal monster weight

Weight of a normal monster



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

Density

Check the "density algorithms explained" guide for in-depth explanations

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Circular: density is calculated for each monster, as the number of monsters surrounding it
Radial: density is calculated for each monster, as the number of monsters on the line between you and it

Distance Min

Density calculation filter minimum distance
Closer monster won't be targeted, since no calculation will be performed for them

Distance Max

Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param

Algorithm dependent
Check guide

Calculation min param

Algorithm dependent
Check guide

Attack limit

Minimum sum of density weights to trigger the current action

Elite weight

Weight of an elite monster

Big guy weight

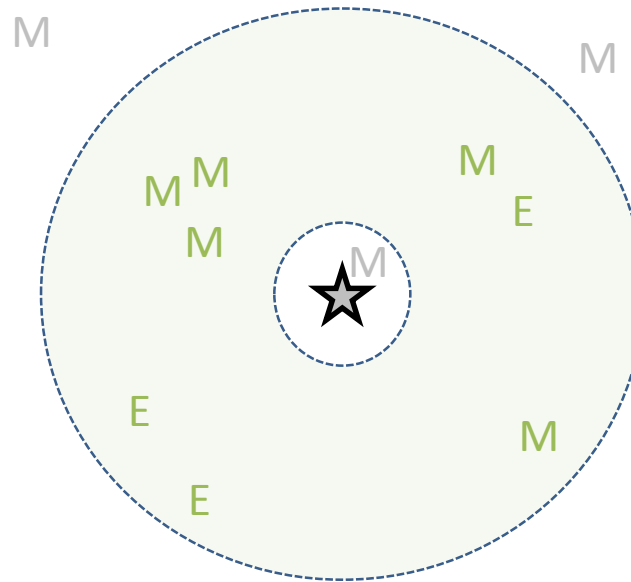
Weight of a warden, uber, rift guardian or boss

Goblin weight

Weight of a goblin

Normal monster weight

Weight of a normal monster



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)

Density

Check the "density algorithms explained" guide for in-depth explanations

Type

Circular: density is calculated for each monster, as the number of monsters surrounding it
Radial: density is calculated for each monster, as the number of monsters on the line between you and it

Distance Min
Density calculation filter minimum distance
Closer monster won't be targeted, since no calculation will be performed for them

Distance Max
Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param
Algorithm dependent
Check guide

Calculation min param
Algorithm dependent
Check guide

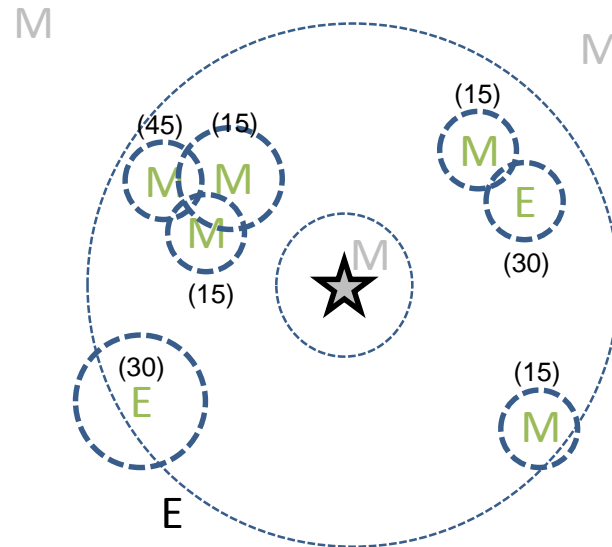
Attack limit
Minimum sum of density weights to trigger the current action


Elite weight
Weight of an elite monster

Big guy weight
Weight of a warden, uber, rift guardian or boss

Goblin weight
Weight of a goblin

Normal monster weight
Weight of a normal monster



 Mob radius (*)
(15) Mob calculated density

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

Targeting priority (radial)

Density

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Circular: density is calculated for each monster, as the number of monsters surrounding it
Radial: density is calculated for each monster, as the number of monsters on the line between you and it

Distance Min
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Distance Max
Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param
Algorithm dependent
Check guide

Calculation min param
Algorithm dependent
Check guide

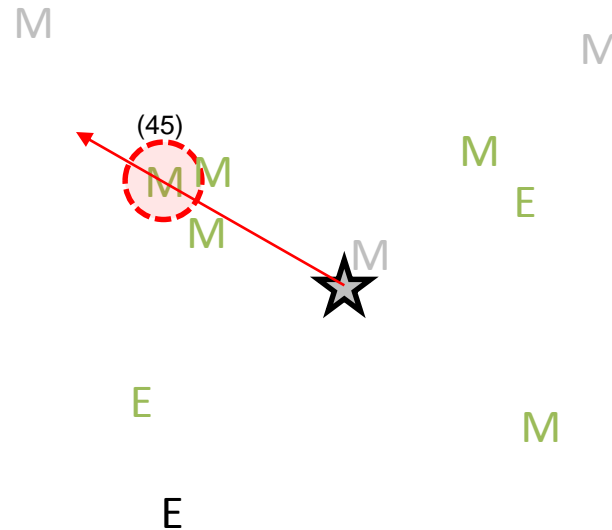
Attack limit
Minimum sum of density weights to trigger the current action

Elite weight
Weight of an elite monster

Big guy weight
Weight of a warden, uber, rift guardian or boss

Goblin weight
Weight of a goblin

Normal monster weight
Weight of a normal monster



3. Choosing a monster

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

Targeting priority (circular)

Density

Check the "density algorithms explained" guide for in-depth explanations

Type: Radial

Circular: density is calculated for each monster, as the number of monsters surrounding it
Radial: density is calculated for each monster, as the number of monsters on the line between you and it

Distance Min: 0
Density calculation filter minimum distance
Closer monster won't be targeted, since no calculation will be performed for them

Distance Max: 50
Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param: 50
Algorithm dependent
Check guide

Calculation min param: 0
Algorithm dependent
Check guide

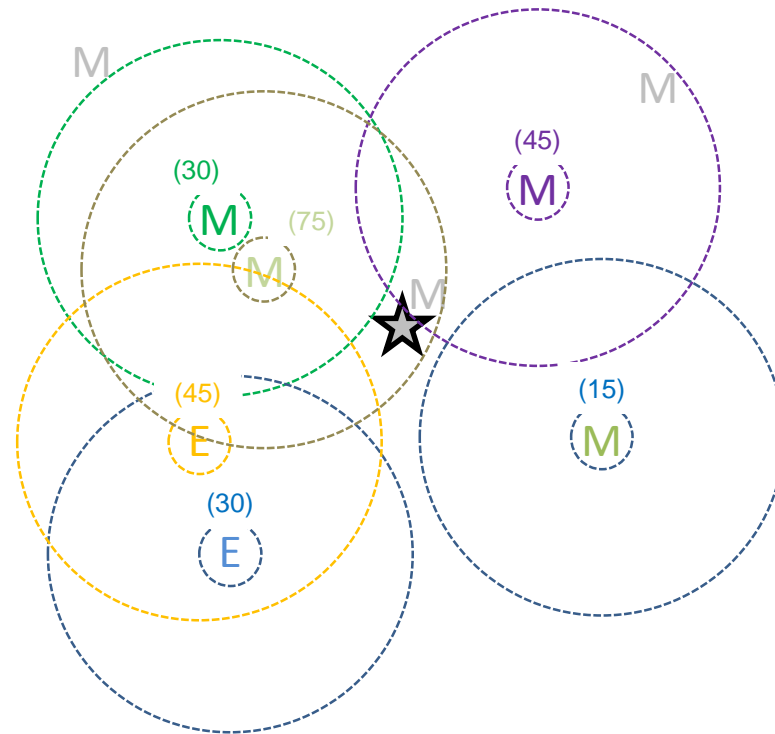
Attack limit: 15
Minimum sum of density weights to trigger the current action

Elite weight: 30
Weight of an elite monster

Big guy weight: 30
Weight of a warden, uber, rift guardian or boss

Goblin weight: 30
Weight of a goblin

Normal monster weight: 15
Weight of a normal monster



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)

Density

Check the "density algorithms explained" guide for in-depth explanations

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Distance Max

Density calculation filter maximum distance
Further monster won't be targeted, since no calculation will be performed for them

Calculation max param

Algorithm dependent
Check guide

Calculation min param

Algorithm dependent
Check guide

Attack limit

Minimum sum of density weights to trigger the current action

Elite weight

Weight of an elite monster

Big guy weight

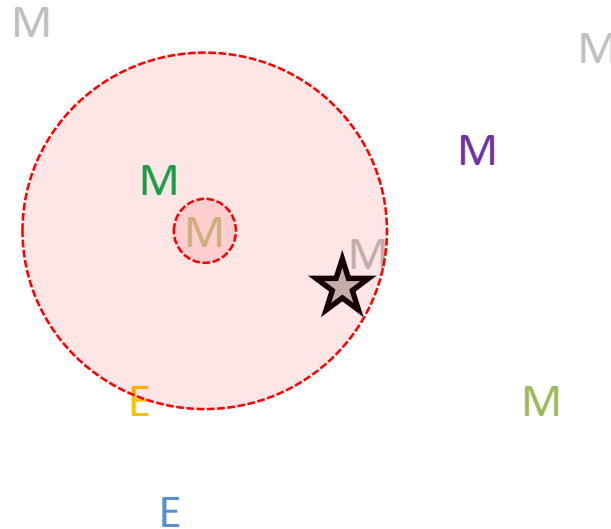
Weight of a warden, uber, rift guardian or boss

Goblin weight

Weight of a goblin

Normal monster weight

Weight of a normal monster



3. Choosing a monster

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