

Azzy AI v 1.40:

A generic mercenary and homunculus AI, including graphical user interface (GUI) for configuration and a wide variety of features.

Features:

- Ability to behave aggressively or passively depending on merc/homun current hp.
- Ability to have specific behavior for different monsters (only practical on homun)
- Ability to have specific behavior for different players in pvp.
- Neither merc nor homun will kill alchemist summoned plants (by default – can be disabled).
- Automatically use appropriate attack skill for the mercenary if configured to use skill attacks.
- Automatically use self-buffs if enabled. Will not recast buffs on teleport like most autobuff AIs.
- Option to select level of selfbuff used by homun.
- Support for new Homunculus S system
- Option to "snipe" targets, without interrupting attacks on another monster (homun only).
- Automatically use player-buffs on owner if enabled.
- Automatically use anti-mob skills when mobbed by enough aggressive monsters (threshold configurable)
- Follows intelligently, can be configured to stay back a number of cells from the owner through use of the FollowStayBack option.
- Option to kite targets and/or use pushback skills for archer mercenaries.
- Targets brandish spear and FAS to hit the most targets possible.
- Friendlisting (to let your mercenary/homun KS other players)
- Cross/Circle motions on friending like MirAI
- Option to "dance" while attacking to bypass the aspd delay on normal attacks (homun only).
- Random Walk - autofollow your mercenary with this turned on, and let it drag you around the map.
- Waypoint based "Route Walk" - make a route, and autofollow your merc while it drags you around. (mercenary only)
- Graphical User Interface for editing of most configuration options.
- Customize whether your homun/merc attacks on your use of skills (casting or on skill use), or just attacks.
- Auto-use chaotic blessings and healing hands
- Auto-shutdown for homun AI on seeing certain monsters (DB protection)
- Developer Features:
 - Includes a utility lua file, which implements mercenary skill info and monster info skills for use in AIs developed by other members of the community.
 - Includes a skill list file, which allows you to call the ID of AI usable skills by their official name. Using this in your AIs will improve code readability.
 - Extras file allows adding functionality without modifying any of the other LUA files.
 - Developer documentation describes how to make extensions to AzzyAI.

How to Install AzzyAI:

1. If you are using Windows Vista or Windows 7, please see below.
2. Download and extract this AI file.
3. Place the .lua files inside the AI package in the USER_AI folder (inside the AI folder in RO folder).
 - a. If you already have a homunculus AI and do not want to replace it with AzzyAI, do not copy over AI.lua
 - b. If you already have a mercenary AI and do not want to replace it with AzzyAI, do not copy over AI_M.lua.
4. If you are updating do not replace your A_Friends.lua file.
5. If you are updating, save the settings from your config and tactics files
6. Open H_Config.lua or M_Config.lua and set the configuration options according to your needs. The effects of the options are described in brief in the config file, and in detail below.
7. Type /merai until it says your mercenary soldier AI has been customized, or /hoai until it says that the homunculus AI has been customized.
8. Summon merc/homun (or relog if it's already out, or vap/recall for homun) and have fun.
9. A file named AAISstartH.txt or AAISstartM.txt will be created in the RO folder when the AI is used in game. This file contains full version information, as well as record of certain error conditions. If this file is not created when using the AI in game, the AI is not installed correctly.

Important note for users of Windows Vista and later:

Due to the UAC feature of these operating systems, it is extremely difficult to make a merc or homunculus AI work when Ragnarok Online is installed in a protected folder (of which Program Files is one). We recommend that you move the entire Ragnarok Online folder to an unprotected location, such as C:/Games. After doing this, delete the contents of USER_AI and reinstall the AI. Note that these steps are unnecessary if UAC is disabled.

See the forums for more information

<http://forums.warpportal.com/index.php?/forum/26-ai-scripting-your-pet/>

Configuration Quick-Start Guide:

AzzyAI 1.40 should be usable out-of-the-box most users. Using default settings, it will be aggressive when it's HP is above 60% (and below that it will only fight in defense of itself or the owner. To make it non-aggressive, set AggroHP to 100. It should use any offensive skills available to it when fighting a monster, and when chasing a monster (if the skill has longer range than normal attacks, ie, homun bolts). It will attempt to use any self-buff skills available to it, including ones that effect the owner. This can be turned off in the skill options.

Editing Homun S options via H_Extra.lua, limitations of GUI:

The AzzyAI 1.40 release uses the existing 1.35 AzzyAI GUI configuration utility, because waiting on the new configuration utility would unduely delay the 1.40 release (as it stands, 1.50 is expected to reach final release in late april or early may 2012, with a new configuration utility). As a result of this, many new options cannot be set via the GUI. The most significant limitation is that setting the SKILL CLASS tactic not only must be done manually, but will be reverted upon using the GUI. A workaround is described in the section for that tactic.

Additionally, many options, mostly relating to Homunculus S features must be set in H_Extra.lua. It was hoped that this could be edited using the existing configuration utility, but unfortunately, many users are reporting an issue with the configuration utility not saving H_Extra.lua.

To edit H_Extra.lua manually:

- Double-click H_Extra.lua
- At the window that opens, select “Choose the program from a list”
- Choose “Notepad”. If you have another text editor installed (Notepad++, for example – not a word processor), you may select that instead.
- Check the box “Always use this program to open files of this type and press OK.
- In the future, you can just double click on H_Extra.lua to open it.

How to friend another player:

Friendened players will be defended by the merc or homun as if they were the owner. Friending will last until unfriended. Although it is possible to friend other players’ mercenary or homunculus, the ID of a merc or homun changes each time the user relogs, teleports, or summons the homunculus – as a result, friending another players merc or homun will last only until they do one of those things.

1. Command merc/homun to walk to 1 cell north or south from the player.
2. Merc/homun will walk a circle around the target if the friend was added, or move back and forth in a straight line if the friend was removed.

Alternately, friends can be added by directly editing A_Friends.lua, using the account ID of the player from ROPD et al. To add a friend, add a line:
MyFriends[(account number)]=1

How to configure the AI using the GUI:

Open the program AzzyAIConfig in your in your USER_AI folder. There are 6 tabs: Homunculus, Mercenary, Homunculus Tactics, Mercenary Tactics, PVP tactics and Extra Options. To save changes, click the Apply Changes button at the bottom of the screen.

How to manually configure the AI:

The AI configuration is controlled by three files each for mercenary and homunculus AI, a config file, a tactics file, and an extra components file. For the homunculus, these files are H_Config.lua, H_Tactics.lua, and H_Extra.lua respectively.

For the mercenary, these files are M_Config.lua, M_Tactics.lua, and M_Extra.lua respectively.

These files can be edited with any text editor. To easily edit them in windows, double click the file, and when you get the message saying that windows cannot open this file, choose "Select the program from a list", and choose Notepad, or a similar program (TextPad, Notepad++, etc). Check the box "always use this program to open files of this type", and click okay

Documentation conventions:

Regardless of which method is used to configure the AI, refer to the following chapters for details on the settings available. In the next sections, when the GUI Configuration tool and the Config files use a different name for an option, the name used in the GUI is written first, followed by the name used in the config files, in parentheses. Also, for readability, the mercenary or homunculus is always referred to as a "homun" or "homunculus". Except where noted otherwise, all functions work for both mercenaries and homunculi.

A note about Vista and Windows 7 (again):

If you are using Windows Vista or later, and have installed RO to the Program Files folder, and UAC is not disabled, the AI configuration programs must be set to always run as admin. Note that as stated above, installations with this configuration are not supported in version 1.35.

Configuration options:

These options control both the basic and advanced behavior of the homunculus.

Options marked with an * are set in H_Extra.lua – see above note regarding editing H_Extra.lua

OldHomunType * - For homun S, this value is used to determine what the homunculus was in its past life. For your convenience, the three possibilities are listed in H_Extra.lua, and you need only comment out the incorrect option (by adding "--" in front of it) and uncomment the correct option (by removing the "--" in front of it). This setting is ignored if your homunculus was previously a Vanilmirth; Vanilmirth-ness can be automatically detected.

Options related to engaging and fighting enemies:

Your homunculus will normally engage (ie, seek out and attack, without having been attacked) monsters which it is configured to attack (see: Tactics) when they are near the mercenary or homunculus.

AggroDist – not used

StationaryAggroDist, MobileAggroDist * – This is the distance from the owner, in cells, within which the homunculus will attack targets while the owner is stationary or moving, respectively. This replaces *AggroDist*.

AggroHP, AggroSP – The homun will engage monsters only when it has more than this percentage of its HP or SP. If you set either to 100, it will never engage targets and will only attack when homun/owner/friend is attacked.

DoNotAttackMoving * – Set to 1 to not attack moving monsters. This may help prevent wasted time against fast moving targets, killstealing from people mobbing monsters, and so on. Obviously, it is unsuitable for use while AFK leveling in OD2 for example.

SuperPassive – If set to true (1), the homun will never fight another monster unless directly commanded to.

DoNotChase – If set to true (1), the homun will never move to attack a monster. It will still engage monsters at range if it has access to a ranged attack, and is configured to use it.

DefendStandby – If set to 1, when homun is placed in standby mode using alt+t, it will continue to defend the owner.

StickyStandby – If set to 1, when homun defends owner while in standby, it will return to standby afterwards. Recommend setting to 1 when *DefendStandby* is in use.

UseDanceAttack – If set to 1, when homunculus is attacking with normal attacks, it will “dance” to increase it’s effective attack speed. Homunculus only; this no longer works for mercenary skills.

TankMonsterLimit – Set this to the maximum number of monsters that the homun should attempt to tank for another killer using the *TACT_TANK* tactic.

AutoDetectPlant – When this is set to 1, the mercenary will assume that all monsters that it has not seen move or attack are plants/mushrooms, and should be treated differently (ignored, by default, see Tactics). This setting should be set to 0 when fighting

stationary monsters.

Options related to movement:

FollowStayBack – Your homun will stay this many cells behind you when following you.

MoveBounds – not used

StationaryMoveBounds, MobileMoveBounds * – This is the distance from the owner, in cells, within which the homunculus may move, for example, to respond to attacks, while the owner stationary or moving, respectively. If it finds itself beyond this distance, it will drop everything to try to get back to you. These options should be set no higher than 14. This replaces *MoveBounds*.

MoveSticky – If set to 1, if you command your homun to move, it will stay there, and not return to you, until you tell it to move again.

MoveStickyFight – If set to 1, when your homun is in the above “sticky move” state, it will still fight normally.

UseRandWalk – If this is set to 1, the homun will walk randomly while it is idle and its HP is above AggroHP. This is intended for mercenaries only, because the player can shift-right click the merc to follow it, and in this way, the mercenary can drag the player around the map.

UseOrbitWalk – Set this to 1 to make the homun walk in an awkward circle around the player while idle and with HP above AggroHP.

UseRouteWalk – Set this to 1 to enable RouteWalk, see Advanced Options. Mercenary only

RouteWalkCircle – When using RouteWalk, set this to 1 if the last point is within *MoveBounds* of the first one, and will move from the last point to the first. Otherwise, leave it at zero, and the mercenary will reverse direction when it reaches the end of the route.

RestXOff, RestYOff – When you sit down, your merc/homun will go non-aggressive, and if it isn't doing anything else, it will move close to you. This is the x and y offset it from the players position that it will move to. Can be positive or negative.

DoNotUseRest – When this is set to 1, the homun will not “rest” when the owner sits.

Options relating to use of skills:

UseAutoSkill – Set this to 1 to enable automatic use of offensive skills.

UseSkillOnly – Set this to Skill Only (1) to only use skills to attack. Set this to While Attacking (0) to use skills while attacking, but not while chasing a monster. Set this to Chase (-1) to use while chasing or attacking. *Chase (-1) is the recommended setting, and is the correct setting for most users.*

AutoMobCount – If the mercenary/homun has a mob attack, it will use it only if there are at least this many targets attacking it.

MobSkillFixedLevel – If the homun has a mob attack, it will always use the level specified by the *(homun S type)(Homun s skill name)Level* option, regardless of tactics skill level settings. Homun only, defaults to 1.

AutoSkillLimit – Set this to a number to limit the number of times an offensive skill will be used on any target. This can be overridden by tactics settings.

UseHomunSSkillChase * – Set to 1 (default) to use the Homun S single target attack skills while chasing

UseHomunSSkillAttack * – Set to 1 (default) to use the Homun S single target attack skills while attacking.

The purpose of these two options is to give players a way to disable the skills while attacking or chasing. For example, many of the homun S skills have interruptible cast times – if you're on a map with monsters that your homunculus cannot flee, you probably do not want to use these skills while attacking – on the other hand, while chasing, the monster is not attacking the homunculus, and you can safely use interruptible attack skills on it.

UseAutoSkill_MinSP – The homun will not use offensive skills if they would leave it with less than this amount of SP. Note that this **ONLY AFFECTS USE OF ATTACK SKILLS – NOT BUFF SKILLS**. The purpose of this option is to keep a reserve of SP for emergencies (via BerserkMode and Berserk_IgnoreMinSP) and/or to ensure that homun reserves enough SP to maintain buffs. For limiting use of the buff skill Amistr Bulwark, see *UseSmartBulwark*

UsePierceSize – not used

Use(homunS type)(HomunS skill name) * – For each new homun S skill, there is an option of this form. Set it to 1 to use the skill and 0 to not use the skill. For the Eleanor skill “Sonic Claw”, as well as all new buff skills, this must manually be set to 1 once you get the skill, because we cannot detect whether the homun has this skill; for all other skills, this defaults to 1, and the AI can detect whether the homunculus has the skill.

(homun S type)(Homun s skill name)Level * – For each new homun S skill, there is an option of this form. Set this to a value between 1 and 5 to set the maximum level of this skill to use. Using the Skill tactic, you can choose to use a lower level for certain monsters, but you cannot choose to use a higher level. Zero (0) is not a valid value.

UseAutoQuicken – If set to 1, the homun will attempt to maintain an offensive self-buff skill, if it has one. Applicable skills are Flitting, Urgent Escape, and Weapon Quicken.

UseAutoGuard – If set to 1, the homun will attempt to maintain a defensive self-buff skill, if it has one. Applicable skills are Amistr Bulwark, Accelerated Flight, Guard, and Parrying.

UseAutoSight – If set to 1, the mercenary will attempt to keep sight up. Level 2 archer mercenary only.

UseAutoMag – If set to 1, the mercenary will attempt to keep magnificat up. Level 4 archer mercenary only.

UseProvokeOwner (mercenary) – If set to 1, the mercenary will attempt to keep its owner provoked, assuming it has Provoke.

UseProvokeOwner * (homunculus) – Set this to 1 if you have a Sera homunculus S with the skill Painkiller, and it will keep Painkiller active on you.

UseSacrificeOwner – If set to 1, the mercenary will attempt to keep its owner Sacrificed, assuming it has sacrifice. This only works if the mercenary is within 10 levels of the player, and the skill is extremely buggy. Mercenary only.

UseAutoPushback – Set this to 1 to enable automatic use of pushback skills to get monsters off of the mercenary. This is subject to override by the tactics list, but must be

enabled here to use. This is most useful for archer mercenaries, particularly the level 6 one (with skid trap). Mercenary only.

AutoPushbackThreshold - This is the distance between the merc and target at which the mercenary will attempt to use a pushback skill on it. Mercenary only.

UseAutoHeal – Set this to 1 to enable automatic use of healing skills (chaotic blessing or healing hands). Set this to 2 to enable automatic use of healing skills, but only when otherwise idle.

HealOwnerHP – This is the owner's HP, as a percentage, below which the homun will attempt to use a healing skill to heal the owner (assuming *UseAutoHeal* is enabled).

HealSelfHP * - For a Vanilmirth with Chaotic Blessings, set this to the HP (as a percentage) at which the homunculus will use Chaotic Blessings to heal itself. This does not work for Lif, as Healing Hands can only heal the owner.

AmiBulwarkLevel – This is the level of Amistr Bulwark to use. Default is 5.

FilerFlitLevel – This is the level of Flitting to use. Default is 1.

LifEscapeLevel – This is the level of Urgent Escape to use. Default is 5.

FilirAccelLevel * – This is the level of Accelerated Flight to use. Default is 1. Zero (0) is not a valid value – disable use of Accelerated Flight using *UseAutoGuard*.

UseSmartFAS – Set this to 1 to try to hit as many targets as possible with Focus Arrow Strike, at the risk of aggroing additional monsters.

UseSmartBrandish – Set this to 1 to try to hit as many targets as possible with Brandish Spear, at the risk of aggroing additional monsters.

UseSmartBulwark * – For an Amistr type homunculus, if this is set to 1, Amistr Bulwark will only be cast if doing so would leave the homunculus with at least 120 SP, so that it will be able to use Bloodlust if/when the cooldown ends.

MobSkillFixedLevel * – If set to 1 (the default) the AI will always use the level specified by the *(homun S type)(Homun s skill name)Level* directive when using AoE skills – if this is set to 0, the level used can be overridden by the monster-specific tactics settings. Usually you want to leave this at 1, so your homun will, for example, use a low level of bolts on an enemy (to save SP), but use the max level of the AoE skill in order to maximize the size of the AoE. Homun only (as mercenaries can only use max level of their skills).

AllowSBR44 * – If this is set to 0 (the default), the AI will block any attempt to manually cast SBR44. This is to help prevent accidental use of the skill. Unfortunately I can't find a way to do the same thing for Self Destruct, which is much easier to accidentally use.

Options related to Berserk Mode:

Through this feature, you can have the homun attack more aggressively in response to commands or large mobs. In the case of responses to commands, it will leave berserk mode upon killing the target.

UseBerzerkSkill – Set to 1 to enter berserk mode when commanded to use an offensive skill.

UseBerzerkAttack – Set to 1 to enter berserk mode when commanded to attack.

UseBerserkMobbed – Set to 0 to disable, otherwise, when fighting this many or more monsters at once (total of monsters on homun and friends/owner), homun will go into berserk mode until there are fewer than this many monsters.

Berzerk_SkillAlways – Set to 1 to always use offensive skills when in berserk mode.

Berzerk_Dance – Set to 1 to use dance attack when in berserk mode (homun only).

Berzerk_IgnoreMinSP – Set to 1 to ignore *UseSkillAuto_MinSP* when in berserk mode.

Options related to Kiting:

When using archer mercenaries, it is frequently advantageous for the mercenary to try to run away from monsters that try to attack it, while attacking them. Note that kiting behavior can also be specified in the tactics, and this just specified default values.

KiteMonsters – Set this to 1 to enable kiting.

KiteParanoid – Set this to 1 to default to kiting before being attacked. This can be overridden by tactics settings.

ForceKite – By default, even if *KiteMonsters* is set to 1, kiting will only be used for homuns with ranged attacks. If *ForceKite* is set to 1, kiting will be enabled for all homuns. Be aware that this may produce broken behavior.

KiteStep – This is the number of cells that homun will move to kite. Leave at 5 unless you have good reason to change.

KiteThreshold – How close a monster has to be before triggering kiting, when monster has attacked homun. 3 works pretty well.

KiteParanoidStep – This is the number of cells that homun will move when kiting before being attacked. Leave at 2 unless you need the homun to be unusually fearful.

KiteParanoidThreshold – How close a monster has to be before triggering kiting without being attacked.

KiteBounds – This is the maximum distance the homun will move from owner to kite. Must be less than *MoveBounds*.

FleeHP – Only kite when below this much hp, as a percentage. Set to 0 to ignore this condition.

Tuning Options:

These options may be used to tune behavior, particularly on laggy connection.

SpawnDelay – After spawning, the homun will wait this long (in milliseconds) before trying to act. It is important to not allow the homun to act immediately; that can result in failure of killsteal prevention measures while teleporting.

ChaseGiveUp – Homun will attempt to move to reach a target this many times before assuming the path is blocked and giving up. Increase this if your homun gives up while chasing targets.

AutoSkillDelay – Homun will wait this long between trying to use skills, even those with no skill cooldown, to prevent problems like “double casting” of skills. This is the length of the delay in milliseconds.

AssumeHomun – With this set to 1, the homun will attempt to automatically friend the owner’s mercenary (and vice versa). Turn off only if this causes problems

UseAvoid – Homun only. When this is set to 1, whenever the homun sees a monster of a

type listed in H_Avoid.lua, it will forcibly exit the RO client. H_Avoid.lua comes populated with all MVPs that can be summoned from Bloody Branches, as well as several nasty DB monsters. You may customize it by following the examples in H_Avoid.lua. It is recommended to test this before relying on it, because on some versions of windows, os.exit() simply errors the client, without disconnecting you until you respond to the error message.

PVPmode – Set to 1 to enable a feeble approximation of PVP functionality. (*currently unavailable*)

StandbyFriending – Set to 1 to use the old AzzyAI friending method.

MirAIFriending – Set to 1 (default) to emulate MirAI friending.

TACTICS:

Through the tactics system, it is possible to configure your merc or homun to treat different types of monsters differently – for example, prioritizing powerful monsters, and ignoring plants and mushrooms.

Mercenaries:

Mercenaries cannot identify monsters. In order for any entry other than the default entry to be used on a mercenary, you must have an updated MobID file for the map and server you are on. See the separate document describing the use and creation of MobID files. For mercenaries, only the default tactic, and the two others noted below, can be used without creating a MobID file.

Editing the Tactics List Directly:

The tactics is stored in H_Tactics.lua or M_Tactics.lua, for merc and homun respectively. The file contains an entry for each kind of monster you plan to be fighting.

For each entry, there are 7 fields for different settings. The format of a tactics list entry is:

```
MyTact[id]={TACT_BASIC,TACT_SKILL,TACT_KITE,TACT_CAST,TACT_PUSH  
BACK,TACT_DEBUFF,TACT_SIZE,TACT_RESCUE}
```

The 'id' is the type id of the monster (obtained from database site)

In addition to the IDs of monsters, there are several IDs used for more general behavior:

MyTact[0] is the default set of tactics the homun will use

MyTact[10] is the default set of tactics used with monsters detected as being summoned

MyTact[11] is the default set of tactics used for monsters that appear to be plants when AutoDetectPlants is turned on (mercenary only)

There is no limit to the number of tactics that can be added, however, there can only be one tactic for any given monster. See the notes in the Extras file for guidance on expanding the tactic system.

Editing the Tactics List using the GUI editor:

Using the GUI, open the appropriate tactics tab.

- To add a new tactic, click the Add button, and fill in the monster name and id. The name is only cosmetic; the key value is the ID, which can be obtained from a database site. Select the tactics from the dropdown menus.
- To edit an existing tactic, click the tactic, and select the desired tactics from the dropdown menus.
- To remove a tactics entry, click the tactic, and click the remove button.
- When finished, click the Apply Settings button to save changes.

Basic Tactics (TACT_BASIC)

This option controls how the merc or homun will react to the monster.
The options are.

Tank (TACT_TANK): Hit monster once, and then hold it until something kills it.

Ignore (TACT_IGNORE): Do not attack the monster, at all, ever.

Attack – Low (TACT_ATTACK_L): Seek out and attack this monster only if there are no higher priority targets, and do not prioritize attacking this monster if it is currently attacking the homun or owner/friend.

Attack – Medium (TACT_ATTACK_M): Seek out and attack this monster, unless there are higher priority targets.

Attack – High (TACT_ATTACK_H): Seek out and attack this monster, assuming not busy responding to React monsters

React – Low (TACT_REACT_L): Attack this monster when self/owner/friend attacked, low priority. *Attack – Medium* and *Attack – High* take priority over this, and do not prioritize attacking this monster if it is currently attacking the homun or owner/friend.

React – Medium (TACT_REACT_M): Attack this monster when self/owner/friend attacked, medium priority.

React – High (TACT_REACT_H): Attack this monster when self/owner/friend attacked, high priority.

React – Self (TACT_REACT_SELF): Attack this monster when merc/homun only attacked, top priority – intended for use on things that would pose a threat to homun if they were attacking the homun, and need to be killed ASAP.

Sniping tactics are treated like attack for the purpose of normal attacks, but if your homun is attacking another monster, and has a ranged attack skill (moonlight or caprice), and SP to use it, it will use it on a nearby monster with the Snipe tactic *_which it is not currently fighting_*. This works best when you know that the skill will 1-shot the monster.

Snipe – Low (TACT_SNIPE_L): Attempt to 1-shot this monster with bolts, even while attacking other monsters, low priority

Snipe - Medium (TACT_SNIPE_M): Attempt to 1-shot this monster with bolts, even while attacking other monsters, medium priority

Snipe - High (TACT_SNIPE_H): Attempt to 1-shot this monster with bolts, even while attacking other monsters, high priority

Tactic Priorities

1. React – Self
2. React – High
3. React – Medium
4. Attack – High or Snipe – High
5. Attack – Medium or Snipe – Medium
6. React – Low

7. Attack – Low or Snipe – Low
8. Tank

Skill Tactics (TACT_SKILL)

This option controls if and how many times an offensive skill will be used on a target of this type:

- SKILL_NEVER - never use skills
- SKILL_ALWAYS - always use skills.
- Set to a positive integer to use a skill that number of times.
- Set to a negative number to use a level of the attack skill less than the maximum level. (Homun only). This is the proper setting for SNIPE tactics.

Kiting Tactics (TACT_KITE)

This option controls whether to kite (run away from, generally rather clumsily) from this target, if kiting is enabled.

- KITE_NEVER - never kite from this kind of monster.
- KITE_REACT - kite from this kind of monster only if attacked.
- KITE_ALWAYS - always kite from this monster - recommended for aggressive monsters.

Reacting to cast (TACT_CAST)

This option controls whether to assume casts from this monster are aggressive acts. This is not very useful in pvm, except to stop homun from killing summoned geographers. The options are

- CAST_REACT – treat casting on self/player/friend as hostile
- CAST_PASSIVE. – do not treat casting as hostile.

Pushback Tactics (TACT_PUSHBACK)

This option controls whether to use pushback skills, if applicable (merc only)

- PUSH_NEVER – do not use pushback skills on this monster.
- PUSH_SELF – Use pushback skills on this monster if merc is attacked
- PUSH_FRIEND Use pushback skills on this monster if owner/friend is attacked

Debuff Tactics (TACT_DEBUFF)

This option controls what, if any, debuff skills will be used (merc only):

- Set to All to use any skill listed in BasicDebuffs[] (default: everything except traps and provoke)
- When using GUI, select the skill, and whether you want it to use it when attacking or chasing.
- When editing tactics file directly, Set to –ID to use that debuff while chasing.
- Set to 1 or -1 to use whatever debuff the merc might have while attacking or while chasing, respectively

Size (TACT_SKILLCLASS) – replaces TACT_SIZE.

This determines which kind of single-target attack skills to use against a given type of monster. To use this tactic on a homunculus, you must manually edit H_Tactics.lua. Unfortunately, at present, using the configuration utility will overwrite these options. If you use the configuration utility, this can be worked around using the old Size tactic, shown in parenthesis. This can be used on mercenaries via the GUI (by selecting the appropriate size tactic) – since there is no “mercenary S”, the only option that may be interesting is CLASS_MOB, and even then, the mercenary tactics limitations make this less than useful to mercenaries.

- CLASS_BOTH (SIZE_UNDEFINED) – Default – use either type of skill on this monster.
- CLASS_OLD (SIZE_SMALL) – Use only pre-S single target skills (ie, Moonlight and Caprice).
- CLASS_S (SIZE_MEDIUM) – Use only homun S single target skills – on a mercenary, this will result in no use of skills versus the monster; don't do it.
- CLASS_MOB (SIZE_LARGE) – Use anti-mob skills against this target, even if there are not enough monsters around it to normally justify using an anti-mob skill.

Rescue (TACT_RESCUE)

This option controls whether the homun or merc will drop everything to come to the rescue of the owner/friends/owner's other merc/homun if this monster is attacking them.

- RESCUE_NEVER - Do not rescue anything from this monster.
- RESCUE_FRIEND - Rescue friends, but not owner.
- RESCUE_RETAINER - Rescue the owner's other homun/merc.
- RESCUE_OWNER - Rescue the owner.
- RESCUE_SELF - Drop everything to defend self against this.
- RESCUE_ALL - All of the above.

Advanced Settings:

These advanced settings are controlled by the Extras configuration. This extras file is a page of lua code that is imported after all other parts of the AI are loaded. The included Extras files contain instructions for using them for several advanced features, and even guidance on using it to expand the AI. See the developer guide for more details on the facilities available in the Extras configuration.

Three relevant options are included in the default Extras configuration:

NewAutoFriend – Uncomment the `NewAutoFriend = 0` line if you are using an AI other than AzzyAI for your mercenary (if this is for the homun) or vice versa. If this option is used, you may need to relog to refresh the friending between merc and homun.

FriendAttack – In this section, you can configure which motions, on the part of the owner of a friend, should be interpreted as offensive acts, and hence a cue for the homun to attack the targeted monster. Set them to 1 to treat them as offensive acts.

BasicDebuffs – In this section, you can configure which debuffs will be used if debuffs are enabled, but no specific debuff is specified in Tactics. Set a debuff to 1 to enable use of it.

Route Walk – Mercenaries support Route Walk. This is similar to random walk, in that you are expected to autofollow the mercenary when using it, and let the mercenary drag you around.

To enable it, set `UseRouteWalk` to 1 (under movement options).

Now, for the map you are leveling on, you must make a "route" file.

This is `Route.lua`.

The file has just one line, which is a list of n walkable cells, each within move bounds of the points adjacent to it.

The format is:

```
MyRoute={{x1,y1},{x2,y2}, ... {xn,yn}}
```

The default route:

```
MyRoute={{160,360},{165,366},{174,366},{174,357},{166,351},{158,355}}
```

 is for just south of the north morroc kafa, and will walk in a rectangle pattern there

For practical purposes, it may require many more points, so making this list for your map can be a laborious task.

In previous versions of AzzyAI, this was stored in the `Route.lua` file. It is now stored in `M_Extra.lua`, with other advanced feature configuration.

Alternate Tactics – the included (commented out) code serves as an example of switching between two tactics lists. See the Development documentation for more information.

PVP_Tactics:

The tactics used in PVPmode are stored in PVP_Tactics.lua. They are edited in the same way as normal tactics, however they are used only against other players. There are two ways to mark players.

- Add a tactic to PVP_Tactics using the player's account id number (from ROPD), and configure appropriately.
- Add a line to A_Friends.lua for that player including one of the key words KOS, ENEMY, NEUTRAL, FRIEND or ALLY, and configure the PVP_Tactics for those classes of target, eg:

MyFriends[1234567]=ALLY

PVP mode is presently still experimental. AzzyAI 1.35 is not intended to provide high performance in a PVP setting.

Version History

1.40 Final

- Padded skill delays to reduce the likelihood of the AI trying to recast skills before the cooldown is up due to lag, flywings, etc. This is 5 seconds for bloodlust, 1-1.5 for flitting/accel flight - so you can still make it bug by winging around alot - or of course if you log out or manually cast the skill - but this should help significantly
- Padded lava slide and a few other skills with a short delay, because my tests indicate that they seem to have one, and we were trying to cast other skills during that delay and failing.
- AI will not let you cast SBR 44 manually, unless you set AllowSBR44=1 in H_Extra. Misclick insurance. Unfortunately, I can't do the same for self destruct
- Minor internal changes backported from 1.50

1.40 dev 23 3/28/2012

- Fixed MobSkillFixedLevel option
- RESCUE_ALL will now rescue if the target is friend or owner, but not if target is self. This makes a lot more sense.
- Fixed issue with failing to use autobuffs on homunculi with more than one buff with a non-zero cast time and delay, due to failure to check delay status.
- Corrected default H_Tactics to use basic tactic ATTACK_M instead of REACT_M, an error introduced by poor source control in dev 21 and 22.
- Improved logging around autobuff and healing skills.
- Added function to improve human readability of skill-usage logging in future updates.

1.40 dev 22 3/27/2011

- Fixed issue with Chaotic Blessings and Healing Hands not correctly using cooldown.
- Fixed issue in which UseAutoSkill_MinSP would be ignored if Berserk_IgnoreMinSP (defaults to 1) was enabled, even when the AI wasn't in berserk mode.
- Cleaned up SP checking, much easier to read and work on now
- Cleaned up attack state logging.
- New option for homuns: MobSkillFixedLevel - if set to 1, always use the level set via (homuntype)(skill)Level option (ex, DieterLavaSlideLevel) for antimob skills, ignoring tactics stating otherwise. Defaults to 1. I've been seeing lots of people using lvl 1~4 of lava slide in OD2, and i'm pretty sure it's because they wanted to use lvl 1~4 of the bolt skills, but level 5 of lava slide.
- Fixed issue with commanding homunculus to use skills not behaving as expected.
- Fixed issue with UseSkillOnly mode not correctly using attack ranges
- Fixed issue with Sera skill Poison Mist not properly using cooldown
- Fixed major issue with incorrectly estimating casting times.
- Fixed issue with incorrectly calculating cooldown options
- Added cooldown on Lava Slide ("what? you didn't have one already?" you say? See last point).
- Improved logging around skill cooldowns.

1.40 dev 21 – 3/26/2012

- Fixed issue with sniping
- Fixed issue with tanking

1.40 dev 20 – 3/20/2012

- Fixed issue with Dieter selfbuff skills
- Added OnInit() call, for players to handle multiple homun AI configurations.
- Added protection for file conflict issue when using multiple homuns at once - will now fail

gracefully.

- AoE skill count no longer counts killsteals as targets when deciding whether to cast an AoE
- Sonic claw delay is back, because the GMs added a short delay on it
- Added UseSmartBulwark option.

1.40 dev 19 – 3/15/2012

- Sonic claw will be spammed faster now
- Fixed issue with movement destination selection. This will fix issue with choosing non-optimal cells to move to, and prevent a hang possible under unusual conditions.
- Corrected issue with monster counting function.
- Corrected anti-mob skills to count the monsters within the AoE instead of the monsters currently near the homun.
- Fixed timing for Sera's Poison Mist skill
- Internal stability improvements
- Added improved tracing for issue with failure to call AI()
- Improved reporting of serious error conditions. Please delete all AAI*.log files in your RO folder.
- Improved reporting of time in AAISStartH/AAISStartM files.

1.40 dev 18

- Deactivate dance attack near edges of screen. This will prevent an obstacle-slide effect from pushing homun off screen.

1.40 dev 17

- Corrected bloodlust support
- Improved behavior when chasing moving targets - if you're faster, you'll catch it now.
- Fixed issue with loop at edges of screen

1.40 dev 16

- Corrected issue with improper default values contributing to improperly dropped targets.
- Improved system for chasing blocked targets.
- Improved catches for rescue loops.
- Possible improvement in dance attack
- Improved logging around chasing and movement.

1.40 dev 15

- Independent cooldown timers for Moonlight, Caprice, Chaotic Blessing, and Healing Hands. I have not tested this with a homun with more than 1 attack skill since I don't have any yet, so try it out and see if it works.
- Added improved logging to try to nail down a freeze bug.
- Support Bloodlust Autocast

1.40 dev 14

- Fixed critical issue that lead to homun running off screen.
- Fixed issue where fix for archers introduced with dev 7 was not applied when homun HP was above AggroHP
- Minor responsiveness tweaks.
- Fixed more improper tail calls.
- Fixed a number of cases where responsiveness measures were being used improperly, forcing me to use more conservative settings for the responsiveness measures. This has been corrected. (this will be tested with more aggressive settings, and these will be included in the next version if they do not adversely affect stability).
- Fixed issue with improperly dropped targets
- Fixed issue with follow state in strongly adverse conditions.

- Fixed issue with spurious warnings in AAI_Warning.log - changes introduced in dev 9 had led to warnings being produced under normal circumstance.

1.40 dev 13

- Fixed issue with moving long distances.
- Improved chasing behavior, should fix the wobble.
- Improved boundary detection while chasing.
- Fixed issue with SP being counted incorrectly when using skill levels other than max level
- Fixed issue a distance function in AzzyUtil.lua (no reported issues in the field).
- Fixed issue with occasional target dropping while closing to melee range.
- Fixed numerous serious bugs with skill while chasing.

1.40 dev 12

- Fixed critical issue with sniping tactic.

1.40 dev 11

- Fixed issue with provoke state.
- Fixed issue with provoke skill info.
- Fixed issue with AI mistaking sacrifice for provoke
- Three above issues combined to cause crashes on homuns with sacrifice when autoprovoked was enabled.

1.40 Dev 10

- Fixed issue where we attempted to use math.huge which isn't implemented in lua 5.0.2
- Fixed issue where chase state tried to move to a target one last time after dropping its old target.
- Fixed line 667 error, which was caused by the combination of the two above bugs.
- Corrected error where stationary aggrodist and movebound would be used if the owner was moving only in the north-south direction.
- Improved logging for the closest cell calculations, because they're brittle and cause a lot of problems.
- Corrected issue with ranged mercenaries moving 1 cell closer than they need to when approaching targets from the west and south.

1.40 Dev 9

- Removed posbug correction code - was causing dropped targets, inappropriate dancing, and other issues because it is impossible to detect posbug due to GetV() bug, and hence was activating even when not posbugged.
- Fixed issue with Sniping - TACT_SNIPE_L/M/H should now work. If you can 1-shot in OD2, try it out! Makes much better use of SP.
- Fixed issue that could cause a high-speed homunculus to run off the screen chasing a monster. We will now drop the target instead. This was killing people in OD2.
- Fixed improper tail call from chase to idle.
- Default tactics are now a bit better: They default to not attacking the stupid event mobs, nor ants and gearths for doing ant eggs.
- Set DoNotAttackMoving in H_Extra to make the homunculus not attack stuff that's moving. It'll still continue chasing them if they do move, though. This is not the final version of this feature, but it's been requested by several people - here's an interim solution.

1.40 Dev 8

- Quick bugfix release
- Fixed follow obstacle fix from previous versions as it was not being used correctly
- Fixed attack posbug fix, which was suffering from an almost identical issue

- Fixed missing geographer tactic.

1.40 Dev 7x

- Fixed the attack chase loop bug.

1.40 Dev 7

- Added support for autoskill skill selection tactic - Manually edit H_Tactics.lua and change the size tactic to CLASS_BOTH (to use either pre-S or homunS skills), CLASS_OLD (for pre-s skill only), or CLASS_S (for S skills only), or CLASS_MOB (if, for some reason, you want to use a mob skill on this, even if there aren't enough targets around to normally justify using a mob attack (per MobAttackCount) - i expect this to be most useful for mercenaries, particularly the lvl 10 sword merc, where you might want it to use BB for the higher damage - of course tactics for mercs require MobID - so maybe this isn't so useful.) For mercenaries, you can edit this using the GUI - use the TACT_SIZE tactic, SIZE_LARGE is the same as CLASS_MOB, SIZE_UNDEFINED should be used in all other cases (since there's no S-class skills for merc)
- Unified code between chase skill use and attack skill use
- Fixed longstanding issue with debuff while attacking which would prevent the homun from using debuffs while attacking if told via tactics to use a certain debuff skill. This bug has been present since 1.30 or earlier and had not been reported. Did anyone try to use this?
- Corrected boneheaded prioritization of targets which resulted in the homun aggroing new monsters while ignoring monsters currently attacking him. This was a really really nasty bug IMO.
- FOLLOW_ST with FAST CHANGE did not use proper tail call when changing to IDLE_ST, this was corrected (internal change)
- Removed more obsolete code
- Fixed a few potential error message
- Fixed issue with empty AAI_Warning file
- Fixed error with bow mercenaries that have the skill Double Strafe
- Another change dedicated to truly eradicate the follow state hang.
- Fixed issue with inappropriate use of antiposbug measures which could cause problems around obstacles.
- Fixed issue where the wrong measure of range was compared to MoveBounds for attacking monsters outside AggroDist, resulting in failure to defend against ranged attackers (like those blasted orc archers!) on the edges of the screen.
- Improved tracing to try to trace down yet another freeze issue.

1.40 Dev 6x2, 6x3

- Fixed issues in M_SkillList.lua

1.40 Dev 6x1

- Fixed missing config program and fixed an issue in M_SkillList.lua

1.40 Dev 6

- Corrected issue with AttackRange() leading to homuns not closing to 1 cell range, resulting in Filirs and Eleanors not closing to skill range
- Corrected issue with MotionClasses resulting in monsters currently targeting the owner not being correctly given priority
- Follow state no longer attempts to move to the owner's location; That doesn't work anymore. Follow state will now move to 1 cell range if it can't move to distance specified in FollowStayBack for ~500ms, and after another ~500ms it will use MoveToOwner() builtin.
- Corrected issue where follow behavior did not return to normal if the homun was interrupted while in follow state. Combined with above, homun could hang in freeze state until vap/recalled.
- M_SkillList.lua now loads.
- Accelerated Flight now works. It is classified as a defensive skill (turn on UseAutoGuard to use

- it).
- Obsolete code removed from AzzyUtil
 - Pierce size removed. This variable and tactic will be removed or repurposed in a future release.
 - Added AoE info to the skill info database - this is not currently used.
 - Added additional AI tracing.
 - Removed unneeded files accidentally included in previous packages

1.40 Dev 5

- HUGE internal overhaul of skill selection
- Fix for issue with manually commanding homun to use skills
- Fix for random error caused by new aggroDist/movebounds
- Fix for incorrect Stahl Horn range
- Closer to support for new buff skills
- Fix for vibrating homun when sitting issue.
- Support for Homun S buff skills

1.40 Dev 3

- Fixed issue with dance attack
- Fixed issue with chase targeting
- Fixed issue with sniping activating incorrectly
- Fixed issue that may have been triggering freezes (sending invalid move commands)
- Fixed issue with poor handling of ranged monsters near edge of screen. See the two new AggroDist values in H_Extra
- Added support for Sera autocasting painkiller on you (set UseOwnerProvoke=1 in H_Extra to enable!)
- Added support for vani's healing themselves (turn on UseAutoHeal and it will kick in automatically. Control the %hp that it will activate at with HealHomunHP in H_Extra)
- Added support for choosing which skills to use while chasing.

1.40 dev 2

- Fixed issues with chase when UseSkillOnly=0 that really should have been fixed long ago. (special thanks to Notepad ++ for this one!). My apologies to the people who reported this and who I accused of installing the AI wrong. There was a bug there after all!
- Added framework to autouse Homun S buffs.
- Fixed commands to use skills on non-monsters. Previously homun would not try to get in range to use the skill.
- Added some development logging. Please contact me if an AAI_WARNING.log or AAI_RMMsg.log is created in your RO folder!

1.40 dev 1, 1x:

- Fixes to critical (but trivial) bugs.

1.40 dev 0 - 1/27/2012

- Added basic support for new homuns.
- You must tell the AI which homun you had before if it's not a vani
- Made some improvements to motion locking issue - this is an issue I'm currently not entirely sure of the underlying basis of. I think it has to do with the horrible change to Move() behavior

- recently.
- Added support for using Homun S skills automatically. This has known issues, but is probably better than before.

1.35

- Total rewrite of targeting, should fix many problems.
- Cross/Circle motions when friending
- Amistr/Lif buff behavior fixed.
- Autouse of healing skills (healing touch, chaotic blessings)
- Fixed Tank and Rescue tactics
- Extras feature functionality expanded greatly.
- Greatly improved debugging facility.
- AAISart files created to verify proper installation
- Newly rewritten GUI
- Major internal changes which should streamline future development
- Fixes to unreachable target handling
- Corrected issue with supplied friendlist, present apparently since the inception of the friend list feature, which could cause homun to kill-steal pistola, a specific iRO player.
- Fixed issue with obstacle avoidance, greatly increased efficiency of obstacle avoidance.
- Fixed longstanding issue with rescue, expanded rescue options.

1.30b

- GUI Bugfix

1.30

- New GUI configuration program by Machiavellian. Please give feedback on this.
- Added support for new monster mercenaries: Doppleganger, Egnigem Cenia, and Alice.
- Added feature to not return to owner when told to move beyond following distance.
- Added berzerk mode feature.
- Implemented data gathering to identify herb plants (AutoDetectPlant)
- Improved obstacle handling while chasing and while attacking.
- Reduced number of files in the AI to reduce clutter.
- Added extra options files
- Fixed issue with sword mercenaries not using single target skills.
- Fixed issue with some monster mercenary skills not working correctly.
- Fixed issue with pvp just plain not working.
- Fixed issue with pushback bugging the merc.
- Fixed issue with homun/merc not using skills when trying to tank.
- Fixed issue where deletion of H_ID.txt or M_ID.txt would cause crashes.
- General minor improvements.

1.29

- Fixed critical bug with bowling bash discovered during xmas lucky box event (affected level 8, 9, and 10 fencers)
- Made AI behavior with Focused Arrow Strike marginally better.
- Corrected AI behavior to account for newly added skill delay on Double Strafe..

1.282

- Added support for Wild Rose mercenaries. Other minor fixes.

1.281

- Fixed issue with use of Sacrifice skill
- Fixed issue where homun would use skills in a manner contrary to tactics settings with SkillWhileChasing selected (again).

1.28

- Fixed stack overflows involving the fast change responsivity optimizations.
- Fixed a random crash problem.
- Fixed issue where homun would use skills in a manner contrary to tactics settings with SkillWhileChasing selected.
- Fixed issue where homun or merc would refuse to use skills when mobbed.
- Fixed issue where GUI would improperly save several settings.
- Added GUI support for future implementation of Chaotic Blessing use (albeit in a terrible manner)

1.271

- Critical bugfix.

1.27

- Fixed bug with buff skills.
- Added sniping tactics.
- Added support for using debuff skills.
- Added support for selecting levels of skills to use (for homun; merc skills are not level selectable)
- Added basic emulation of MirAI friendlisting. Still doesnt do the movement upon friending.
- Homun/Merc will now KS if you tell it to attack or skill on a monster that is fighting another player
- Various minor fixes/tweaks
- Updated AI to control features added with 1.26 and 1.27.

1.263

- Critical bugfix.
- Added DoNotUseRest option.
- Added StickyStandby and DefendStandby options.

1.262

- Critical bugfix.

1.261

- Critical bugfix.
- Fixed bug with the autofriend added in 1.26 which prevented proper friending of merc/homun.

1.26 (GUI v1.25, AI v1.26)

- Homun and merc are now always friended to eachother using H_ID and M_ID files. Disable this by changing NewAutoFriend to 0 in defaults.lua.
- Dance Attack works now.
- Support for a new target class on mercs: Summons. Now there is an option for Default Summon, which is the default behavior for any summon or retainer not friended to the mercenary. This should probably be left as is (react low), so that mercs will not kill summoned plants, even if aggressive.
- Support for more sophisticated targeting of player/friend's enemies - targeting when player uses skills or is casting. Configured in H_FriendMotion and M_FriendMotion files.
- Improved use of buffs - will now not recast buffs right after spawning in if they're still up. This is particularly important with guard, which apparently works the same way as the player skill, being taken down when recast.
- Yet another attempt at fixing RouteWalk. This one appears to have been marginally successful.
- Added bug that prevented mercenary from using offensive skills or attacks, and caused homunculus to attempt to use skills improperly.

1.25a (GUI v1.25, AI v1.21)

- Minor GUI improvements, support for v1.25 features, including debuffing, which is not implemented in the AI yet.
- Numerous minor tweaks to AI behavior that should significantly improve targeting and antiKS behavior.
- Routewalk no longer crashes the client; it fails gracefully instead.
- Dance attack temporarily out of order (something went wrong trying to improve it)
- Errors if the default AI was not installed fixed for good.

1.20 Release

- GUI Improvements
- Dance mode no longer sucks as much.

- Fixed bug causing dependence on the default AI being in the \AI\ folder
- Various targeting changes for improved target selection:
 - Fixed detection of owner/friend targets. This had gone unreported since 1.09 or earlier!
 - Will now finish killing monsters that are on the owner/friend/self, before aggroing more targets.
 - Monsters with the ATTACK_LOW and REACT_LOW priority are exempt from that - they will be ignored, even if attacking the owner/self/friend, if there are higher priority targets to attack.
- Made an attempt at fixing use of skills while chasing.
- Debuff while chasing still doesnt work, but using attack skills while chasing does.

1.20b0

- GUI for config
- Minor bugfixes
- Subtle changes to default config files and structure to make GUI easier to write.
- TACTIC_IGNORE option removed for GUI compatability.

1.09

- Added basic pvp support
- Removed bug with DoNotChase and UseSkillOnly
- Improved targeting speed

1.08

- Added homunculus support.
- Added use debuff skills, but it doesnt work.
- Added DoNotChase option
- Recoded chasing routine, so it doesnt suck like it used to.
- Various tweaks and fixes.
- Added defaults file, so that missing lines from config wont choke the AI.
- Fixed unacceptable following behavior with archers, specifically in combination with AutoPushback
- Fixed friending bug.

1.071

- Critical bugfix.

1.07

- Added full tactlist support based on actor IDs, MobID file required.
- Fixed bug with follow command (standby mode)
- Added another bug with follow command (standby mode)
- Added support for live friending and unfriending
- Added support for autofriending of homunculus.

1.061

- Critical bugfix.

1.06:

- Added feature to autocast provoke or sacrifice on user.
- Added feature to auto use pushback skills (arrow repel and skid trap) if monsters are on the merc (doesn't work great).
- Added feature to make the merc go non-aggro if the player sits down.
- Added option to limit the number of times merc will use skills on a given enemy.
- Did work on future support of tactics based on actor IDs.
- Observed and captured several minor bugs with target acquisition for study (will be fixed later).
- Fixed bug with random walk.
- Improved friending AI (thanks Biochemist-ness)
- Expanded motion list in Const_.lua for future expansion.
- Dug up and fixed buried treasure in the follow command processing routine.

1.05:

- Recoded following to support following at distance (FollowStayBack),
 - Fast transition from Chase to Attack,
 - Added kiting support.
 - Also added an option to only use skill attacks.
 - Added bug with random walk.
- 1.04:**
- Critical bugfix.
- 1.03:**
- Added SuperPassive option, fixed random crash error (line 903 error).
- 1.02:**
- Successfully made AI coexist with MirAI.
- 1.01:**
- Unsuccessfully made AI coexist with MirAI.
- 1.00:**
- Initial release