

## **Caster of Magic**

Read me File – 01<sup>st</sup> September 2020

Version 6.05

### **Welcome.**

Thank you for playing Master of Magic™! We are always looking for ways to improve your gaming experience. For the latest information on the game, please go to the Slitherine web site at [slitherine.com](http://slitherine.com).

Below you will find the latest and greatest information on Master of Magic™. Information in this document supersedes that in the official game manual.

### **Troubleshooting:**

Ensure that your system meets the minimum system requirements. These are found in the game manual. Also, ensure that you have the latest video and sound drivers available for your system and that you have upgraded to the latest version of DirectX from Microsoft. The vast majority of reported problems are resolved by upgrading all drivers and DirectX to the latest versions.

If you are still experiencing problems with the game, please use our Help Desk at [slitherine.com/helpdesk](http://slitherine.com/helpdesk) or post in the Master of Magic™ Support Forum at [slitherine.com/forums](http://slitherine.com/forums). Please provide as much detail on your issue as you can.

**To obtain optimum game performance, close all other applications before beginning a game.**

### **Change History:**

#### **V6.05 – September 01, 2020**

- Fixed bug : Fortress Lighting strength cap wasn't applied.
- Fixed bug : Single tile Mountains add 10% production instead of 7%.
- Fixed bug : Clicking on farmers in a city that has too much unrest to have enough minimal farmers available sets an impossible amount of farmers, resulting in production turns displaying the wrong number.
- Raise Dead now revives units with 50% hp left, even if the unit is multi-figure, instead of half the number of figures rounded down.
- Increased AI trade value for Fire Elemental (3->4)
- Increased AI trade value for Warp Wood (1->3)
- Reduced AI trade value for Armageddon (54->53)
- Increased AI trade value for Efrete (30->32)
- Reduced AI trade value for Stream of Life (29->23)
- Reduced AI trade value for Blizzard (24->22)
- Increased AI trade value for Fire Storm (22->25)
- Increased AI trade value for Invisibility (26->30)
- Reduced AI trade value for Survival Instinct (36->35)
- Fire Elemental casting cost is now 16 instead of 20.
- Removed Web Spell from Huntress hero (as it prevented using item charges), added +1 random ability.
- Efrete resistance reduced by 1, Doom Bat resistance increased by 1.
- Fixed bug : Clicking on heroes on the army screen sometimes freezes the game.
- The -4 unit production priority modifier of Perfectionist AI cannot drop the unit production priority below the baseline anymore. (What this effectively means, the AI cannot have 0% chance to build units below having 7 units in the garrison, instead of this threshold dropping down to 3 units which made Perfectionist wizard cities extremely undergarrisoned for a fairly significant period of time at the beginning of the game. This change has no effect on how much fewer units the AI builds later on when military buildings raise the priority above the default, it only affects cities that have no military buildings or special ores to boost unit production priority.)
- Darkness now costs 20 MP.
- Fixed bug : Units casting a spell does not set the "used up both melee attacks" flag on the unit, resulting in the unit gaining additional movement when affected by a movement modifying effect (Logistics, Haste, etc)

- Added "Encounter Zones and Treasure" section to the documentation
- Changed the number of easy lairs generated from  $17+(2*\text{land size})$  to  $20+(4*\text{land size})$
- Changed the number of hard lairs generated from  $6+(5*\text{land size})$  to  $3+(3*\text{land size})$
- Changed monster budget of easy lairs on Arcanus from 130-700 to 130-1300.
- Changed monster budget of easy lairs on Myrror from 130-1000 to 130-1600.
- Changed hard arcane lair monster budget from 300-3250 to 900-3250.
- Changed hard myrror lair monster budget from 300-3750 to 900-4350.
- Colossus monster budget cost changes from 1100 to 1200.
- Demon Lord monster budget cost changes from 1500 to 1200.
- Great Lizard monster budget cost changes from 333 to 290. (This enables Great Lizard to appear in lairs with budgets between 1000 and 1500)
- Unicorns monster budget cost changes from 200 to 240.
- Angel monster budget cost changes from 375 to 450.
- Great Wurm monster budget cost changes from 900 to 1000.
- Nagas monster budget cost changes from 170 to 140.
- Ghouls, Sprites monster budget cost changes from 80 to 90.
- Skeletons monster budget cost changes from 20 to 30.
- Phantom Warriors monster budget cost changes from 40 to 30.
- Gargoyles monster budget cost changes from 140 to 160.
- Changed Tower of Wizardry budgets from 2300-4700 to 1800-4700.
- Towers of Wizardry are required to have at least one monster that has over 300 budget.
- Fixed bug : Surveyor shows 50% bonus production instead of 100% on cities that have Inspirations.
- Fixed bug : Dispelling Wave dispels own Guardian Spirit effect in combat for AI players.
- Changed treasure generation order : Uncommon and Common spells are now generated after medium and high value items instead of before. This makes sure the higher value items will see the full available budget of locations so placing a spell first will not block a location from having a high quality item by spending some budget on a cheap spell.
- Myrror no longer gets a 25% treasure budget bonus. The larger monster budgets on the plane increase the treasure budgets as well, which raises the probability of Myrran locations getting selected for higher value treasures meaning that Myrran treasure is noticeably better even without the bonus, making the bonus obsolete and contraproductive. (as it both results in fewer quality items being placed on Arcanus as well as more gold/mana being placed overall while the total amount of useful treasure is predetermined globally for the whole game in the current system.)
- Fixed bug : Blood Lust granted by Mystic Surge in combat does not double attack power.
- Fixed 6.04 bug : When targeting direct damage spells, the AI only adds 1/10 additional priority for killshots than intended often resulting in targeting other units that survive the hit instead.
- AI combat spellcasting, C group buffs (Heroism, Lionheart, Invulnerability, Iron Skin) gain extra priority to match B group buffs in the combat situation when B group would outprioritize C group. (this was why the AI casts True Sight before Lion Heart and Invulnerability in many cases)
- Fixed bug : AI never casts spells using heroes that have over 127 MP.
- Fixed bug : A rampaging monster stack that contains a windwalking and a walking unit on an ocean tile cannot move.

#### **V6.04 – July 07, 2020**

- Fixed bug : Sage Master adds +33% research instead of the intended +25%.
- Fixed several inaccurate texts in the game help entires.
- Removed leftover combat AI attack targeting priority code that reduces priority by -10 on targets with attack less than half the attacking unit's defense which was referencing a no longer used and unset variable to check for enemy defense.
- Units standing on non-gate tiles protected by City Wall no longer have their combat melee attack targeting priority set to -20, instead the priority is decreased by 5 only. This should help the AI pick the correct target after entering the tiles inside the city. (units on the gate, or when the attacker is a Wall Crusher, still receive +5 priority, as eliminating that unit helps other units to gain access to

the inside of the city) -Fixed bug : The AI checks the wrong type of immunity when deciding if a unit is allowed to cross Wall of Fire. (Fire Immunity was working as intended, but instead of Magic Immunity, Cold and Death were checked.) -The AI now recognizes combat Stasis as a curse that needs to be removed when calculating Dispelling Wave combat priority.

- Fixed bug : AI prioritizing targeting the unit at the city gate with Web above all other units had no effect. However, this priority will now only apply if the target is a flying unit.
- The AI will avoid targeting units affected by Stasis in combat using Web and Mind Storm.
- Fixed bug : AI calculates targeting priority for Life Drain and Syphon Life wrong, resulting in not properly recognizing differences in expected damage output.
- Fixed bug : AI prioritizes units with Purify instead of Invisibility as targets for direct damage.
- AI combat direct damage target selection : flying targets get 25% higher additive priority instead of 50% higher multiplicative.
- AI combat direct damage target selection : expected damage dealt beyond the target's remaining hp+3 is ignored in the priority. (damage is random but at this much extra it's high enough chance the target dies so any further is a waste) -AI combat direct damage target selection : If a target is expected to die, priority increases by  $(9 + \text{cost of unit}/20)$  instead of units costing 250 or higher increasing priority to 4 times the original and other units receiving no bonus priority at all.
- Adjusted calculation for spell priority to match the above 2 changes.
- AI unit resistance based spell targeting priority : If the spell directly or indirectly kills the unit (Black Sleep, Confusion, Creature Binding kills indirectly), success rate has to be at least 10% for heroes, 20% for units costing 150 or more, and 30% for everything else. If the spell does not kill the unit even indirectly then the rate has to be 30%. If the success rate is below, the AI treats the unit an invalid target. (Shatter and Possession are except from this update as they are limited to normal units which will rarely be important enough to risk the below 30% chance, so these spells still require a 30% chance to be cast. Previously spells directly killing units required 10% while other spells 30% regardless of what the target was. This meant even if there was a 20% chance to confuse a demigod hero, the AI ignored the opportunity. Note this is only a change for targeting validity. Targets with a low success rate still result in lower priority to actually select and cast that spell, but it is now an option.) -Warp Creature is now on the list of spells the AI will avoid casting in unimportant battles while banished to save mana.
- Fixed bug : additional priority to cast Flight on nonseaworthy melee units in naval combat had no effect.
- The above bonus priority now also applies to Wraith Form -Fixed bug : AI considered Air Elemental summoning as a strategy to stall when the fastest own unit was faster than speed 4 instead of when the fastest enemy was slower than 5.
- Fixed bug : The AI cannot target units with Magic Immunity using Warp Wood even though the spell affects those units.
- Fixed bug : The AI will avoid casting healing and reviving spells in unimportant battles while banished to save mana when the target is a powerful unit, instead of when the target is a weak unit.
- Fixed bug : The AI wasn't able to target enemy units using Animate Dead.
- Fixed bug : Massacre and Holy Word priority is calculated wrong : fewer living figures in the unit resulted in higher priority to cast instead of lower.
- Fixed bug : AI spell priority calculation for Mana Leak checks enemy city wall presence wrong.
- AI Wave of Despair now correctly checks for the only affected unit being combat summoned Wild Boars instead of combat summoned Centaurs.
- Fixed bug : Combat cast Wraith Form didn't protect from Entangle's effect.
- Fixed bug : Combat turn ends when all units were unable to move but a control changing spell (Confusion, Possession, Creature Binding) successfully gave the player a unit that can be moved.
- Fixed bug : Housing formula can yield a negative bonus growth in extreme cases (very bad terrain+slow growing race) -Housing formula now yields a minimum of +40 growth before the modifier for rebels/farmers.
- Fixed bug : When an outpost is destroyed that had a Summoning Circle, the circle isn't moved to the owner's fortress.
- It is no longer possible to lose 1 mana crystal on rounding while using Alchemy.

- The AI is now allowed to send units into and use towers that have no garrison but were last used by a non-enemy player, displaying their flag color.

### **V6.03 – May 19, 2020**

- fixed bug : The AI sometimes cancelled Time Stop earlier than intended as the formula wasn't updated to the new maintenance cost mechanics.
- Wild Boars can now be summoned by Fairy Ring Floating Island now cannot be summoned by Fairy Ring.
- Fighter's Guild description now mentions later buildings are unavailable until 1406.
- Fixed bug : Troll Settlers have the stats and abilities of a High Elf Settler when built.
- Fixed bug : When neutral monsters rampage then disappear, undead raised by them don't disappear and stay hidden in the city, being unable to move and possibly causing issues (as it results in two players having units on the same tile, the city owner and the neutral player breaking two important game rules, the 9 unit per tile rule and the one player per tile rule at the same time.) AI minimal Dispel Magic priority for unit curses is now halved if the unit affected has a production cost below 100.
- Runemaster and AEther Binding now adds at most +6 priority to casting Dispel Magic each (but still 50% of the total priority if it would be less than 6).
- When the AI casts a combat spell that has a slider option (Dispel Magic or Dispelling Wave), the slider amount now depends on the combat situation : The AI will use maximal slider if the enemy is at least twice as powerful, and will use none if the enemy is at least 3 times weaker, in steps of 25% slider cost for each "Army comparison result level".
- Units raised by Necromancy items gain the Animated status.
- Fixed 6.01 bug : when low difficulty should have prevented enemies from stalling, they were sometimes forced to stall instead and failed to attack enemies.
- On Fair difficulty, neutrals are only prevented from using movement speed or invisibility based stalling, they can use flying or "out of ammo" stalling.
- The AI will now use the high difficulty "build more settlers"
- strategy when they are starting on a different plane from the human player even if that plane is Arcanus.
- Barbarian AI players are now aware they can spend gold to buy Magic Markets
- Fixed bug : AI builds Wizard's Guild in High Men cities as if it still required a Library instead of a Magic Market.
- Fixed bug : The AI prioritizes unit production in cities that have Orihalcon and have a race that can build Magicians even before the Wizard's Guild was built.
- Fixed bug : The AI restriction to not produce Trireme when Galley is available in the same city had no effect.
- The AI will not build Carrack in cities where Warship is available.
- AI with Expansionist Objective will build up to almost twice as many ships as other personalities.
- The maximal amount of ships any AI will want to build is capped at 108. (per plane)
- The maximal amount of ships any AI will want to build is also capped at the number of their cities times 4.
- When the AI calculates production priority for various units types based on levels and figure count, the effects from buildings disabled by Evil Presence will no longer be included.
- The AI no longer adds "is production boosting building" priority to University for races that do not get a Mechanician's Guild.
- Fixed bug : Peaceful AI didn't have the intended additional power distribution priority to produce RP.
- Fixed bug : The cap of desired mana crystals for power distribution to avoid high skill wizards making too much mana was 8 times higher than intended, making it overflow and possibly making the AI produce no mana when they should have.
- The AI is now allowed to use the lowest tax rate.
- Fixed bug : AI can cast Invisibility on the overland map without knowing the spell if Divine Order is in effect.
- Fixed bug : Additional AI overland spell priority of casting True Sight against Sorcery players had

no effect The AI will not cast Zombies in combat against Wall of Fire Below Master difficulty, the AI will not cast Drain Power before turn

- 120 even if they somehow obtain the spell early.
- Power Link's effect is now disabled during Time Stop as intended.
- Fixed bug : Combat summoned Paladins and Catapults don't count as fantastic units for some effects that affect fantastic creatures only.
- Propose Treaty menu now checks for relation being  $\geq$  the required amount instead of only  $>$ .
- When the AI offers gold after being Threatened, gold amount is now the value determined from the turn count, but no more than half the AI's gold. Previously, all of the AI's gold was available, but if the amount to give was higher than that, instead only a quarter of the available gold was actually given.
- AI players will not offer a spell after being Threatened or when requesting a Treaty from the player, if they already gave the player a spell that way gold will be offered instead. (they realize after the first spell that it wasn't worth it if the player keeps coming back for more or broke the treaty and needs another one.) AI wizards will also not offer a spell if they have been banished by the player previously. (they understand the spell will be used against them and don't trust the player.) Undead Settlers now lose the "Create Outpost" ability instead of having the ability displayed but being unable to build.
- Fixed some outdated descriptions of predefined default wizards (some of them were mentioning retorts they had in older versions)

#### V6.01 – April 02, 2020

- Fixed bug : predefined items with Invisibility or Invulnerability can't be generated even beyond the intended turn of 100. (note, this did not affect random generated items, those could have had these item powers on them.) On Normal and Easy difficulty, the AI will engage enemies in melee with ranged units that run out of ammo, even if their attack strength is low.
- On Fair difficulty, Neutral enemies will not try to use any of the stalling tactics.
- Fixed bug : Attempting to cast Holy Weapon when Holy Arms is in effect fails to display the correct warning message and might cause the game to crash.
- Fixed bug : Moving units with the keyboard bypasses the planar check.
- Map generation continent size is now more accurate and continent generation is faster. (thanks, Drake178!) Fixed 5.7 bug : game sometimes crashes or corrupts memory when AI is trying to flee.
- The AI will no longer flee from battles where all their remaining units are Confused and switched sides for the turn.
- On Easy difficulty, enemy wizards are now forbidden from being Chaotic personality in addition to the previous restrictions.
- Overland spells now have a Counterresistance vs Nightshade equal to their base cost. Cost modifiers (such as Evil Omens or Specialist) will not alter the success rate.
- Overhauled the "base cost" vs "effective cost" handling for overland spells. This fixes the bug of incorrect Spell Blast costs during Evil Omens. Spells that use the spell slider : Disenchant Area, Disjunction and Dispelling Wave are excluded from this fix : Their slider cost still affects the dispelling power and the other cost modifiers still do not. Yes, this means Spell Blast might still counter these for a negative cost during Evil Omens, that can't be helped.
- Added a FAQ section to the document.
- Fixed bug : Towers are sometimes generated too close to the X edges of the map, especially on smaller maps.
- The frequency of generated rampaging monsters is now scaled down if player count is lower than 4 to compensate for having fewer players the monsters can attack.
- Overexpansion warnings will never trigger below 5 cities even if it's the early game on smaller landmass sizes.
- Fixed bug : The AI casts Dispelling Wave against Wall of Shadows when they are defending instead of when they are attacking.

## **V6.00 – February 25, 2020**

- Initial Release