

TABLE OF CONTENTS

LEVELING	4
Progress	4
Perks	4
Max stats	5
Legendary	5
Traits	6
Races and Birth Signs	6
Concentration	6
Experience set	7
Fatigue Multiplier	7
Limit of independent training	8
Train with trainers	8
FIGHT	10
Armor	10
Movement speed	10
Movement styles	11
Jumps	12
Attack speed	12
Range and angle of attack	13
Evasive maneuver (dodge)	13
Chance to hit	14
Physical damage	14
Speed of physical projectiles	15
Incoming damage	16
Combo attacks	17
Combo Series	17
Crits	17
Stamina Damage from Physical Damage	18
Knockdown	18
Hitstan	18
Weapon Mastery	19
Stamina consumption per attack	20
Injuries	20
Two-Weapon Fight	21
Fist Fight	21
Kick	21
Weapon Throw	23
Changing the grip of the weapon	23
Roundhouse Kick	23
Shooting and throwing	23
Shield Block	24
Arrow Block	25
Parry	26
Left Weapon Block	27
Swing for npc	27
Improved AI	27
The Way of the Maniac	28
Realistic Projectiles	28
Pushing off walls and objects (climbing)	29
Other	29
MAGIC	30
Magic power	30
Magic Crits	31

Magic Resistance	32
Cast speed	33
Charging Spells	33
Secondary effects and counter-effects	34
Featured Spells and Secondary Spell	36
Quick cast	36
Mana and stamina cost per cast	36
Charge consumption	37
Total limit of permanent effect enchantments	is 37
Potential charge	38
Chance of successful casting	38
Enchanted weapon trigger on attack	39
Summoned Creatures	39
Magic projectile speed	40
Tangential Magic	40
Improvement of magic effects	40
Enchantment	44
Spell Crafting	44
Anti-exploits	44
Improved interface	45
NEW MAGIC EFFECTS	45
Dash (1)	45
Dash strike, dash kick and slam	46
Teleport (10)	46
Reload (10)	46
Weapon Repair (5)	47
Repair armor (3)	47
Teleport to city (150)	47
Time Slowdown (0.5)	47
Magic Lantern (0.1)	47
Kinetic Shield (1)	47
Life lich (0.5)	48
Projectile Control (1)	48
Telekinetic Throw	49
Kinetic Arrow (3)	49
Kinetic Strike (4)	49
Blast Wave	50
Summon Projectiles (1)	50
Universal Summon Weapon (10)	51
Summon Leggings (5), Summon Shoulders (5)	51
Load weapon (1)	51
Empower (1)	51
Damage Aura (x2)	52
Zone (x1)	52
Rune (x1)	52
Totem (0.5)	53
Shotgun (x5)	53
Ray (x10)	53
Wave (x2)	54
Nova (x1)	54
New Reflection (1)	54
ALCHEMY	56
Potion Brewing	56
Potency of potions drunk	56
Power of the ingredients eaten	57
Potion limit	57
Poisons	57

Throwing bottles	58
User-friendly interface	58
GUNSMITH	58
Repair	58
Weapon and Armor Upgrades	58
ECONOMICS	59
First offer price	59
Active barter	59
Prices for services	60
Investments	60
Random loot	60
STEALTH AND CRIME	60
Stealth Check	60
Pickpocketing	61
Crit from stealth	62
Lock picking	62
CREATURES	62
Creature Stats	62
Weapons and Spells	63
Poisonous Strikes	63
Magic Blows	63
Personal Scripts	63
DragonDoor	64
GMST	65
Leveling	65
Fundamental coefficients. Stamcoef	65
Attacks and damage	67
Armor	68
Movement speed and jumping	69
Stamina Shields	70
Enchantment. Alchemy. Blacksmith	71
Prices. Trade. Persuasion	73
Stealth. Theft. Crimes	75
Artificial Idiot	76
Other	77
Skill growth rates	78
MAGICAL EFFECTS	78

LEVELING

Progress

Each skill has 2 governing stats: primary and secondary. When your skill increases, you get +3 progress points to the primary stat and +2 progress points to the secondary stat. You also get +2, +1, or +0.5 to level progress depending on whether the skill was your main, major, or minor. When you gain 10 points in a stat's progress, it increases by 1. When you gain 10 points in level progress, it increases. When you level up, your Luck increases by 1, and if you're above level 50, your Attractiveness also increases by 1. Stats are capped at 100.

This means that level and stat growth is now fully automated. Yes, no more 5-5-1 jerking! You only need to pump up your skills.

Primary characteristics:

Strength: Long Blades, Blunt Weapons, Axes, Armorer.

Stamina: Heavy Armor, Medium Armor, Athletics.

Dexterity: Polearms, Marksmanship, Defense, Acrobatics, Stealth, Hacking.

Speed: Short Blades, Melee, Light Armor, Unarmored.

Intelligence: change, illusions, mysticism, alchemy.

Willpower: destruction, restoration, witchcraft, enchantment.

Attractiveness: trade, eloquence.

Secondary characteristics:

Strength: Polearms, Marksmanship, Melee, Heavy Armor

Endurance: Axes, Blunt Weapons, Defense,

Dexterity: Long Blades, Short Blades, Light Armor, Medium Armor, Alchemy, Weaponsmith

Speed: athletics, acrobatics, stealth

Intelligence: Destruction, Restoration, Sorcery, Enchantment, Security, Trade, Speech

Willpower: Alteration, Mysticism, Illusions, Unarmored Combat

Attractiveness: no skills

Perks

The maximum level is now 100. Choose perks wisely - there will definitely not be enough for everything. The F2 button by default brings up the perks menu.

The difficulty level in the mod settings only affects the number of perks per level:

Hard : 1 – set by default, true old school RPG experience only at this level.

Average: 2 – for casual players who don't want to bother with build-making .

Easy: 3 – for crabs. In this mode, Vvardenfell is like a resort island where you will undergo rehabilitation, and perhaps your claws will evolve into hands.

In any case, at the very beginning you are a worthless bum and will definitely not become a god after an hour of leisurely play. But when you level up, find your style and take the right perks - your build will play, and you will be able to challenge the game's challenges. Difficulty levels affect only the ultimate power of your character, that is, the degree of pumping when you reach the peak of strength. Easy level - pure pumping, medium - moderate pumping , and hard - no pumping (recommended).

Perks can be reset - you get 1 reset for every 5 levels. A total of 20 resets at level 100.

Cost of attribute perks:

1 or 2 depending on your main stats. So if your main stats are intelligence and speed, then intelligence and speed perks will cost 1 perkpoint each, and perks of the other stats will cost 2 perkpoints each.

Cost of skill perks:

0.5 if the skill is main, 1 if the skill is important, 2 – for all other skills.

Some perks have discounts (see the perk table, if c = 1 is indicated, then a discount of 1 perkpoint). The cost of a perk cannot fall below zero.

Max stats

Max health, stamina, mana, and carry weight are recalculated each time the perk window is closed. Only base stat values are taken into account in the formulas.

Health = 0

- + Luck * (50% or 25% with trait)
- + Stamina * (50% or 25% with trait)
- + Strength * (25% or 0% with trait)
- + Will * (25% or 0% with trait)
- + 50 from 5 perks
- + Racial bonus
- + 30 Lord's Sign
- + up to 50 from the legendary bonus

Stamina = 0

- + Stamina * (100% or 200% with trait)
- + Strength * (100% or 200% with trait)
- + Will * (100% or 0% with trait)
- + Dexterity * (100% or 0% with trait)
- + 300 from 10 perks
- + Racial bonus
- + 300 Sign Lover
- + up to 200 from the legendary bonus

Mana = 0

- + Intelligence
- + Will * (0% or 50% with trait)
- + 200 from 10 perks
- + Racial bonus
- + 100 Atronach Sign or + 50 Apprentice Sign
- + up to 100 from the legendary bonus

Max load = 100

- + Strength * 100%
- + Stamina * (100% or 0% with trait)
- + 200 from 5 perks
- + Racial bonus
- + 100 Horse Sign

Current load = 0

- Stamina * (0% or 50% with trait)
- 200 Sign Horse

Legendary

Legendary Points are awarded for heroic deeds and legendary achievements. 5 points for each level (or 8 with the Glass Cannon trait), 2 points for each reputation point, 100 for defeating Dagoth Ur, 50 for defeating Almalexia, 50 for defeating Hircine. Another 30 points for becoming the leader of each faction.

Max Legendary Points = 400 (or 500 with Glass Cannon trait).

You can spend them on useful passive stats in a special menu.

Bonus types: max health, armor, max mana, health regeneration, stamina, mana, charges, attack bonus, dodge, lightness, jumping, dash, all types of resistance, kinetic shield, magic reflection, magic absorption.

Each bonus type has its own cost coefficient. You can have no more than 8 different bonus types at a time (health, mana, stamina, armor and lightness are not taken into account). The maximum value of each bonus type is limited by your level.

You can change your bonuses at any time if you are not in combat.

There are traits that increase both your maximum Legendary points and your current amount:

- + 100 – Talent
- + 200 – Unlocked Potential
- + 200 – Mutation

Traits

Traits are special character traits that provide huge bonuses, but at the same time close or greatly weaken some of your capabilities. For example, there are traits that do not allow you to use alchemy and enchantments too brazenly, but in return greatly increase your maximum Legendary Points, which you can spend on anything.

To take traits you need to reach a certain level. Traits can be reset just like perks - with the exception of the Overconfidence trait - think carefully before taking it.

You can increase your maximum stats above 100 starting at level 55 in the traits menu. To gain access to buffs, the stat must reach 100.

Each stat can be boosted 10 times - 1 boost for every 5 levels above 50. Each boost provides a +10 bonus to the maximum and current value of the stat and costs 3 perkpoints. These bonuses are reset via trait reset.

Races and Birth Signs

Initially, the hero has only a weak starting power, granted to him by his Sign.

But upon reaching level 20, this power awakens: passive bonuses are replaced with their improved versions, and some Signs also receive additional active abilities.

When a hero reaches level 50 and ascends to near divine rank, his Mark reveals its true potential.

For a list of passive bonuses at all three stages, see the Excel table with perks.

The starting characteristics of all races are balanced:

- * The sum of the characteristics is 300
- * Good luck to everyone 30
- * Men are 10 times stronger than women, and women are 10 times more beautiful.
- * 60 skill bonuses. All races received slightly more starting combat skills.

The characteristics and bonuses of the races can be viewed in the excel table.

Racial special abilities are now restored after any rest, even if the rest lasted only 1 hour.

Concentration

By pressing a special button you can concentrate to get bonuses to stats, spending stamina. You have 8 slots for concentration. You can edit the slots by going to the perks menu and then to the concentration menu. You can select the current slot using the quick access wheel by holding down a special button.

Maximum number of different bonuses for each slot = 7. Each bonus type has its own stamina consumption multiplier. Maximum stamina consumption = 100

- * 2 if the Charisma perk is taken
- * 0.5 if a special trait is taken

When you activate Focus, you spend 100% of your stamina cost at once (or 50% with the Luck perk).

Once the stamina is depleted, the concentration will automatically stop.

To focus on characteristics, there are perks that reduce stamina consumption from 0.5 to 0.4.

Each Birth Sign has discounts on certain types of bonuses.

Also, some races have discounts on certain bonuses.

In order to increase the maximum concentration on each type of bonus, you need to take perks. Each perk branch has a perk that increases concentration on certain bonuses.

Gaining experience

New realistic experience gain formulas for each skill.

Coefficient for casting **magic** and applying **enchancements** = (spellcost * 10) / (spellcost + 100)
10 mana = +0.9 exp, 25 mana = +2 exp, 50 mana = +3.33 exp, 100 mana = +5 exp

Weapon coefficient = (enemy level + 5) / 10 * damage / 20

Armor coefficient = damage before armor / 20

Athletics coefficient = 1 + % load / 100 (but not higher than 2)

That is, 200% of experience at 100% load and 100% at 0 load.

Perception coefficient = castle level / 5

To disarm traps = trap strength / 5

Coefficients for **acrobatics** = Jump power / 2000 – for jump power above 300, otherwise Coefficient = 0

Fall speed / 500

Gunsmith Coefficient = Durability Restored / 50 * (50 + Item Price Coefficient) / 100

alchemy experience when brewing potions depending on the total cost of the ingredients used: +100% experience for every 50 cost.

You also get additional experience in **trading** for buying and selling goods at more favorable prices than the merchant's first offer: 1 experience for every 500 coins of the transaction amount + 1 experience for every 20 coins of profit.

Each investment gives additional experience equal to 5% of the invested gold.

You also get additional experience in **perception** for finding random loot.

Experience = loot price / 1000

You also gain additional experience in **stealth** when your pursuer stops chasing and returns to his place.
Experience = enemy level / 10.

And also for critical hits from stealth: experience = 1 + enemy level/5

And for critical shots from stealth: experience = 1 + enemy level/10

Additional experience for pickpocketing: 1 experience for every 20 coins worth of the stolen item

There are also additional coefficients of experience gain speed depending on whether the skill is major, important or unimportant, whether its specialization matches the specialization of your class and whether a special trait is taken. The less experience a skill requires, the faster it levels up.

Your specialization skills require 80% experience.

Main skills require 100% experience (with trait 50%)

Important skills require 125% experience (with trait 75%)

Minor skills require 150% experience (with trait 100%)

Fatigue Multiplier

The experience gained is multiplied by an additional Fatigue Multiplier. This system is perhaps the only balanced and realistic way to eliminate exploits with almost instant skill leveling to 100.

All skills are grouped into 4 categories:

1) Movement: All weapons, all defenses, acrobatics, athletics, security and stealth.

2) Magic: all schools of magic and enchantment.

3) Craft: gunsmith and alchemy.

4) Social: trade and eloquence.

Athletics is not subject to fatigue.

When you level up a skill, you gain (1, 2, 5, 5) minutes of fatigue for that skill's category (depending on the category).

These are the values for the default multiplier of 3, but you can adjust it in the menu. Reduce the multiplier

to 0 to not get fatigue at all.

Fatigue cannot exceed 1 hour for each category. Fatigue decreases over time during skill upgrades, when moving between locations, and when saving. Only real time is taken into account: it does NOT flow in the menu or while waiting. The higher the accumulated fatigue, the lower the experience gained:

$100\% - \text{minutes of fatigue} * 2$

In the interface settings you can enable or disable a convenient indicator to display the current fatigue multiplier.

Limit of independent training

If you train too much, you will reach burnout after reaching a certain skill level and will not be able to progress on your own until you get enough motivation. Motivation is your fame, social approval, achieving success in guilds and heroic deeds. This limitation can be disabled in the settings.

Each skill has its own limit. Please note that this limit does not affect lessons from trainers.

Skill limit = 25

+25 if this is your main skill

+ 10 if this is your important skill

+ 10 if it's your specialization skill

+ Racial bonus of this skill

+ Number of lessons taken from trainers

+ 10 with the trait Overconfidence

+ Reputation / 2

+ 1 for each rank in each faction

+ 10 for completing each of the 3 main quests

+ Bonuses for other quests (Daedric quests, some dangerous non-faction quests)

+ Bonuses for defeating superbosses (ash vampires)

Training from trainers

Now it's not as cheating as before - it's limited.

The player gets 3 skill points for each level, and if you take a special trait - then 1 (but in return the experience gain in all skills will be accelerated). Skill points are saved and spent on training with trainers. Unlike the Oblivion and Skyrim system, you do not need to resort to nerdiness and quickly run to at least someone to spend your skill points on training. No - play calmly at your own pace. You can, for example, come to Balmora already at level 10 and immediately spend the accumulated 30 skill points, raise 6 levels with trainers, get another 18 skill points and immediately spend them. Although it would be much wiser to be frugal: spend precious skill points only on the most difficult to pump skills at high values.

This limitation can be disabled in the mod settings.

FIGHT

Advanced combat. All changes affect both the hero and NPCs, and all creatures. If you want to receive messages about calculations to better master the new game mechanics, enable this option in the mod settings.

Armor

A full set of armor is divided into 25 pieces. Breastplate (6), shield (5), boots (3), greaves (3), helmet (2), shoulder pads (2 each), gloves and bracers (1 each). The game takes into account how many pieces of a particular type of armor you have on. This affects your running speed, attack speed, dodge chance, dodge maneuver cost, spell charging speed, spell casting chance. More details in their sections.

The armor level for each piece of armor is calculated as follows: $\text{Base} * \text{Coef.}$

Coefficient = 100%

+ skill * (50% or 75% with armor perk + 25% with Endurance perk)

For summoned armor, an additional multiplier is used in the calculation:

$50\% + \text{Witchcraft Skill} / (4 \text{ or } 2 \text{ if Witchcraft perk is taken})$

If the special Conjunction perk is taken, the summoned armor will be considered unarmored and will not receive a multiplier from the Light Armor and Stamina skill, but will receive a 50% multiplier.

We also take into account that in the total calculation of armor, the armor is affected by its current percentage of durability. The share of each piece is also taken into account: 30% for the cuirass, 5% for the gloves, 10% for everything else.

For unarmored combat we have 20 armor per 100 skill with a perk and 10 armor without a perk. It should be noted that in unarmored combat, armor does not grow linearly depending on the skill, but along a parabola.

There are also Stamina, Block, Medium Armor, and Heavy Armor perks, each of which adds 5 armor to your total. That's 20.

Speed of movement

Player Movement Speed = Base * Multipliers

Base = 150 for walking or $100 + \text{Athletics} * (35\% \text{ or } 50\% \text{ with Athletics perk})$ for running

+ Speed (up to 500) * (35% or 50% with Speed perk)

* Floating coefficient, applies only to swimming and is equal to $(35\% \text{ or } 50\% \text{ with Athletics perk}) * (100\% + \text{Fast Swim Magnitude})$

Levitation Base = Levitation Magnitude * Coefficient which is 30

+ Alteration Skill * (5% or 15% with Alteration perk)

+ Speed (up to 300) / (40 or 20 with Speed perk)

Ideally you will fly at a speed of 50 for each point of levitation.

Next, the Base is multiplied by a series of **factors** :

* 100% - % load * (40% or 20% with Athletics perk). This coefficient cannot be lower than 20%

* 62.5% - only if the player is moving backwards or backwards and to the side

* 80% - only if the player moves diagonally

* 75% - only if the player is in free fall and does NOT have the Acrobatics perk.

* Armor coefficient = 100%

– 1% for each piece of light armor * $(200 \text{ or } 100 \text{ with perk} - \text{skill})/200$

– 1% for each piece of medium armor * $(300 \text{ or } 200 \text{ with perk} - \text{skill})/200$

– 1% for each piece of heavy armor * $(400 \text{ or } 300 \text{ with perk} - \text{skill})/200$

+ Lightness (minus load modulus)/20

The armor coefficient cannot be higher than 100%.

If the player is **running**, the speed is multiplied by a number of coefficients:

* Running coefficient

* Linear interpolation from (50% or 75% with Endurance perk) to 100% depending on % stamina * (125% or 200% with Athletics perk)

* 80% - only for moving NOT forward if the special Speed perk is NOT taken

* 66.6% or 80% with Speed perk - only when holding a swing

* 66.6% or 80% with Haste perk - only when casting a spell

* 80% - only when charging magic if the special Speed perk is NOT taken

The run coefficient is 350% or 400% with the anti-stealth trait

+ Sprint coefficient - only if the player runs straight forward

Sprint coefficient increases smoothly from 0% to 50% (100% with the Speed perk) over 3 seconds (or 1 second with the Athletics perk) if the player continuously runs straight forward (accelerates). If the same Athletics perk is taken, then dodge or dash (with a range of at least 300) instantly brings the Sprint coefficient to the maximum.

If a player is **sneaking**, then

* $75\% + \text{Stealth} / 4$ (if Stealth perk is taken). This coefficient cannot be higher than 100%

Also, if the actor moves backwards (it doesn't matter whether he moves sideways or not), the engine additionally multiplies his speed by 80%. Also, consider that the game engine always multiplies the speed by 75% if the player runs exactly to the left or right - this is logical and balanced. But here's another engine feature: if the player moves diagonally, the speed is multiplied by 125%. To compensate for this bug, we apply an additional 80% multiplier to diagonal movement.

To be precise, the engine considers that the actor, moving diagonally, must cover the full distance both for forward and sideways movement, that is, when moving along the hypotenuse of the triangle, he must end up at the same point as if he moved first along one leg, and then along the second.

Forward length = 100, sideways length = 75 (since the engine multiplied 100 by 75% for sideways movement)

$\text{Hypotenuse} = (100^2 + 75^2)^{0.5} = 15625^{0.5} = 125$

Therefore, it turns out that the speed of movement diagonally is equal to 125% of the norm.

Thus, taking into account the engine multipliers, the actor moves with speeds:

100 – straight ahead, 125 – forward and sideways, 75 – straight aside, 100 – backward and sideways, 80 – straight ahead.

If we apply our correction factor for the 80% diagonal, then:

100 – straight ahead, 100 – forward and sideways, 75 – straight aside, 80 – backward and sideways, 80 – straight ahead.

Now if we apply the rear coefficient (62.5%) and the sprint coefficient (125%), then:

125 – straight ahead, 100 – straight ahead and to the side, 75 – straight to the side, 50 – backwards and to the side, 50 – straight back.

At the bottom of the screen there is a speedometer showing your current speed (can be disabled in the settings).

NPC movement speed

Base = (Base Speed + Speed) * 150%

Base for flight except flying creatures = (Levitation Magnitude + 4) * (40 + Speed / 10)

Next, the Base is multiplied by the coefficients:

* Float coefficient = $50\% * (100\% + \text{fast float magnitude})$

* 100% - % load * 50%. This coefficient cannot be lower than 20%.

* from 100% to 50% depending on missing stamina - only for running

* 300% + Athletics Skill - only for running for humanoids

* 400% - only for running for non-humanoids

Movement styles

While the character fulfills the necessary conditions of movement, he is in one of the styles and receives certain bonuses and penalties.

1) **Aggressive**. You need to move forward (you can also move to the side). For the attacker, the style is counted only if he has a melee weapon. For the defender, the aggressive style only counts bonuses if the

conditions of the signature perk of medium armor are met (at least 15 pieces of medium armor are worn).

2) **Agile** . You need to move to the side, but you can't move forward (but you can move backwards).

3) **Defensive** . You need to move backwards, but you can't move to the side. For the attacker, the style is counted only if he has a melee weapon. For the defender, the defensive style only takes into account bonuses if the conditions of the medium armor signature perk are met (at least 15 pieces of medium armor are worn). The defender also receives defensive style bonuses if the conditions of the heavy armor signature perk are met (at least 15 pieces of heavy armor are worn) and he stands still.

Jumping

$\text{Jump Power} = \text{Base} * \text{Stamina Factor} * \text{Weight Factor} * \text{Armor Factor}$

Base = 300

+ Acrobatics Skill * (100% or 150% with Acrobatics perk)

+ Dexterity (up to 500) * (100% or 150% with trait)

+ Super Jump Magnitude * (8 or 10 with Changes perk)

Stamina Coefficient = Linear interpolation from (50% or 75% with Athletics perk) to 100% based on Stamina % * (125% or 200% with Acrobatics perk)

Stamina coefficient cannot be higher than 100%.

Weight Factor = 100% - Load % * (40% or 20% with Athletics perk). Cannot be lower than 20%.

The armor coefficient is taken from the running speed formula.

Ideally, the jump force = 600 + 100 for every 5 super jump magnitude .

Changed the jump logic if the player is currently in hitstun. In the original, the jump vector was chosen randomly if the player was moving and trying to jump. Now the jump power is simply reduced by 2 times, but the vector is preserved.

Total gravity increased to 1000 (627 in original).

Freefall speed limit increased to 15000 (4005 in original).

While the actor is jumping, his running speed is multiplied by an additional coefficient:

0.5 + Acrobatics/200

* 75% if the special Acrobatics perk is not taken

Stamina cost per jump = 30 or 25 with Acrobatics perk

* **Cost coefficient** . Coefficient = 0%

+ % load * (0.5 or 0.25 with Athletics perk)

+ **Armor coefficient** equal to 100%

- 0.8% for each piece without armor * skill * (0 or 0.01 with perk)

+ 1% for each piece of light armor * (200 or 100 with perk - skill) / 200

+ 1% for each piece of medium armor * (300 or 200 with perk - skill) / 200

+ 1% for each piece of heavy armor * (400 or 300 with perk - skill) / 200

But if the Armor Coefficient is higher than 100%, then it is further reduced to 100% by Lightness (minus load modulus)/20

Fall damage = ground impact speed - 700

- Acrobatics * (5 or 8 with Acrobatics perk)

* 10% or 5% with Acrobatics perk

/ (1 + Dexterity / 200)

You gain Acrobatics experience per fall equal to Speed/500

Attack speed

Attack Speed = Base Weapon Speed * Speed Factor

Base Fist and Monster Hits Speed = 1

Base throwing speed: 1.5 (stars), 1.25 (darts), 1 (knives), 0.75 (hatchets).

Base Weapon Speed = 2 + Weight Factor * Strength Factor

Weight coefficient = weight / (weight + 50)

Weight cannot be higher than 50

Force coefficient = - 350%

+50% for two-handed melee weapons

+ Strength / (Strength + 100) * 50% (or 100% with Strength perk for melee or ranged weapons)

Strength cannot be higher than 500.

Graph of weapon speed depending on player Strength and weapon weight. Green – one-handed and ranged weapons without perk, red – with perk. Blue – two-handed weapons without perk, purple – with perk. Variable s – Strength.

Speed coefficient for the player = 80%

+ Speed (up to 500) * (5% or 10% with Speed perk)

+ Weapon Skill (up to 200) * (10% or 20% with weapon perk)

– % Fatigue * (20% or 10% with Athletics perk)

– % load * (20% or 10% with Athletics perk)

* Armor Multiplier = 100%

+1% for each piece of light armor * (200 or 100 with perk - skill) / 400

+ 1% for each piece of medium armor * (300 or 200 with perk - skill) / 400

+ 1% for each piece of heavy armor * (400 or 300 with perk - skill) / 400

– Lightness (minus load modulus)/20

Armor multiplier cannot be below 100%.

Speed coefficient for NPC = 80%

+ Speed * 20%

+ Weapon Skill * 20%

– % fatigue * 20%

– % load * 20%

The speed coefficient cannot be lower than 50%.

Range and angle of attack

Melee attack range = weapon range

+ Dexterity (not higher than 100) / 2000 if the Dexterity perk is taken

+ 0.05 if special weapon perk is taken

+ 0.05 only for piercing attacks if the Dexterity perk is taken

- 0.2 only for the player's fists if the Martial Arts signature perk is not taken

For fists and attacks from unarmed monsters, the weapon range is considered to be 0.7.

Angle of attack

For the player, the angle depends on the attack type and Dexterity perks:

Cutting : 45 (60 with perk) + 30 (with other perk)

Chopping : 20 (30 with perk)

Piercing : 15 (20 with perk)

For everyone except the player, the attack angle is 41 degrees.

Evasive maneuver (dodge)

Press the dash button - and if you have enough stamina you will perform a maneuver if your allowed dash magnitude is 0 or if dodge priority is set over dash , or if you hold down a special mouse button (assigned in the settings). Otherwise, a dash will be performed, not a dodge.

Dodge is similar to dash - it's a quick movement in the chosen direction. You can't do the maneuver if you're under hard control or in a jump (but if you have the Acrobatics perk, you can).

Dodge speed = 100

+ Dexterity (up to 500) * (30% or 50% with trait)

+ Acrobatics * (30% or 50% with Acrobatics perk)

+ Dodge Effect Magnitude * (80% or 100% with Speed perk)

* Armor coefficient

* Stamina Coefficient

* 50% if the player is in hitstun

Armor coefficient = 100%

+1% for each piece without armor * skill * (0 or 0.01 with perk)

- 1% for each piece of light armor * (200 or 100 with perk – skill)/200
- 1% for each piece of medium armor * (300 or 200 with perk – skill)/200
- 1% for each piece of heavy armor * (400 or 300 with perk – skill)/200

Ideally, the armor coefficient = 125% without armor, 100% in light armor, 87.5% in medium armor, 75% in heavy armor. But if the armor coefficient is less than 100%, then it is additionally increased up to 100% by Lightness (minus load module) / 20

Stamina coefficient = linear interpolation from (50% or 75% with Endurance perk) to 100% depending on stamina % * (125% or 200% with Athletics perk). Cannot be higher than 100%.

When performing a maneuver, a 3-second timer is started.

Dodging will cost 30 stamina, or 25 with the Acrobatics perk.

* **Timer coefficient**

* **Cost coefficient** . Coefficient = 0%

+ % load * (0.5 or 0.25 with Athletics perk)

+ **Armor coefficient** , which is taken from the jump cost formula.

The timer coefficient is taken into account if the timer of the previous maneuver is active: the stamina consumption will be additionally multiplied by

1 + Time Remaining / (5 or 10 with Athletics perk)

That is, the second maneuver immediately after the first will take away approximately 150% of stamina (or 125% with the perk).

Chance of Hitting

The engine's hit chance check now always gives 100%, but you can disable this in the mod's settings.

A new chance to hit check has been created specifically for melee attacks against the player. If the player is in the agile style or if the conditions of the light armor signature perk are met (at least 15 pieces of light armor and the player is moving in any direction), then he has a chance to dodge.

Enemy Chance to Hit = 100% + Weapon Skill + Dexterity – Blindness

– (Chameleon + 300 if player is invisible) * (0.25 or 0.5 with Stealth perk)

- Passive coefficient

- Active coefficient

Passive coefficient = 0

+ Dexterity * 10% or 20% with Dexterity perk

+ Luck * 10% with Luck perk

+ Acrobatics * 20% with Acrobatics perk if player is in jump or dodge

The passive coefficient cannot exceed 100.

Active coefficient = dodge speed / 5

+ Dexterity * 10% or 20% with Dexterity perk

+20% with Speed perk

+20% if you have 2 weapons in your hands and the corresponding Dexterity perk is taken

+ Number of pieces of light armor if the Light Armor perk is taken

* (Timer remaining - 3 + dodge window) / dodge window

Dodge window = 0.25 seconds

+ 0.25 seconds with Speed perk

+ Number of pieces without armor /100 with Unarmored Combat perk

Also, when you successfully dodge a blow with an evasive maneuver, you gain experience in light armor and unarmored combat proportional to the number of pieces of that armor.

Physical damage

The damage formula has been completely replaced. Physical damage is calculated first.

Base Weapon Damage = Linear interpolation from minimum weapon damage to maximum weapon damage based on swing%.

Weapon Damage = Weapon Base Damage * Durability Factor

Durability Factor = Linear interpolation from (25% or 50% with Gunsmith perk) to 100% depending on the weapon's durability %. However, if the weapon's durability % exceeds 100%, then the Durability Factor is

equal to the durability % (but not higher than 125%).

Base damage of unarmed creatures = max damage of attack type 1

* 100% + % missing health / 2

Base fist damage = 5

+ glove weight (not higher than 10) * (25% or 50% with Martial Arts perk)

Werewolf Base Damage = 50

All these types of damage are multiplied by the swing %.

Melee Physical Damage = Weapon Damage * Melee Power

Melee Power = Strength Factor + Skill Factor + Dash Factor

* Stamina Coefficient

* 75% for one-handed weapons or 100% for two-handed weapons and fists

Strength coefficient = 100 + Strength (not higher than 500) * Multiplier, which is 30%

+10% with Strength perk

+ 10% if trait is taken (or for everyone except the player)

+ % missing health / 5 if special Strength perk is taken - only for the player

* 200% for everyone except the player

Skill Coefficient = Weapon Skill (not higher than 200) * Coefficient. Coefficient = 20%

+20% with corresponding weapon perk

+10% with a Strength perk (for two-handed weapons and fists) or Dexterity (for one-handed weapons) or with another Dexterity perk (for ranged combat)

* 200% for everyone except the player

Stamina Coefficient = Linear interpolation from (50% or 75% with Endurance perk) to 100% based on stamina % * (125% or 200% with corresponding weapon perk)

Stamina coefficient cannot be higher than 100%

Ranged Physical Damage = Max Projectile Damage

* Projectile Speed / 50 (every 5000 speed is 100% damage)

+ Skill Coefficient

Physical damage for throwing melee weapons =

Max of Slashing Damage or Piercing Damage * Durability Factor

(Weapon damage cannot be less than the weapon's weight / 2)

* Projectile speed / 50

* 100% + Skill Coefficient

The amount of damage to a weapon depends on physical damage . It is 10% of physical damage for everyone except the player. For the player = 10%

– Base Gunsmith Skill / 20 (only if Gunsmith perk is taken)

* 2 if trait is taken, but only for melee weapons

Speed of physical projectiles

The projectile's speed is taken into account when it hits to calculate damage. The initial speed of the projectile changes under the influence of gravity and other factors.

Initial speed of arrows and bolts = Maximum weapon damage

* Strength factor

* Summoned weapon coefficient

/ arrow weight + 0.1 (the weight of the summoned arrows is considered 0.3) (not lower than 0.3, not higher than 0.6)

$\wedge 0.5$

* 1000 for the player or 1500 for the rest

* % of swing

+ Kinetic Bonus / (Projectile Weight + 2) * 200

Initial velocity of a projectile weapon =

100 + Strength (up to 500) * (100% or 150% with Strength perk)

* 150% if throwing a two-handed weapon

/ projectile weight * (0.5 with signature accuracy perk only if it's a melee weapon) + 10

$\wedge 0.5$

- * 1000 for the player or 1500 for the rest
- * % of swing
- * Stamina Coefficient
- + Kinetic bonus / (projectile weight * (0.5 if it's a melee weapon) + 10) * 1000
- Kinetic Bonus** = Magnitude
- * Caster Power (Changes)
- * 125% with Will perk
- Magnitude = Will (not higher than 500) * 10% + Change * 30%
- * % of swing
- Magnitude is limited in the settings
- Manacost = Magnitude / (5 or 10 with Intelligence perk)

[Graphs](#) of projectile speed versus bow strength/player strength.

Green is an arrow with a weight of 0.3, red is your own arrow with a weight of w , blue is a throwing weapon with a weight of 0, purple is your own throwing weapon with a weight of v , orange and black are your own melee throwing weapon with a weight of u (orange is for throwing with one or two hands and the signature accuracy perk, black is for throwing with two hands without a perk). X is the strength of the bow or the player (each unit = 10 player strength).

Incoming damage

Knowing the physical damage, we can calculate the final incoming damage from physical attacks.

Secondary Damage = Physical Damage

- * Multi-coefficient + Mastery coefficient + Crit coefficient + Dash coefficient
- * Summoned Multiplier

Final Damage = Secondary Damage * Armor Factor

Armor Coefficient = Secondary Damage (max 100)

/ (Secondary Damage (up to 100) + Armor * Armor Multiplier)

[Graphs of](#) armor influence on damage. d – incoming damage, p – % of armor penetration. The final damage is calculated by the red graph if the secondary damage is below 100, and by the green one if it is above 100.

Armor Multiplier = 100%

- weapon weight * (0.5 or 1 with Strength perk) (only for melee, no more than 50 weight)

- when using crushing weapons and crossbows if the weapon perk is taken

- when critical from stealth

- +20% if the projectile hits a piece of heavy armor and the target has the Heavy Armor perk

- (Arrow or bolt weight – 0.2) * (50 or 100 with the Accuracy perk). Arrow weight is no higher than 0.5, the weight of summoned arrows is considered equal to 0.3

- Weight of the thrown projectile (not higher than 5) * Stat of the thrown weapon speed / 20 * (50 or 100 with the Accuracy perk)

If the target's resistance to physical damage is below 0 (for example, due to a vulnerability spell), then the armor is additionally reduced by the module of this resistance, but not higher than 100. If the final armor level is below 0, then the Armor Coefficient = 100% - armor.

Mastery Factor. If a character has the appropriate weapon perk and has met certain conditions, depending on their weapon type and skill level, they will receive bonus damage. More details in the weapon types section.

Crit Factor - Bonus damage that is only applied if a critical hit is dealt.

Multi-coefficient = 100% – Defense coefficient + Knockdown coefficient + Stealth coefficient + Racial coefficient

Protection coefficient. This is a penalty consisting of many components, which in total cannot exceed 50% and cannot be lower than 0. It consists of three parts:

- 1) If the attacker is in a defensive style: 40%. This penalty is reduced by (skill + agility)/(20 or 10 if the agility perk is taken), and also by another 10% if the spear perk is taken and it is a spear attack.

- 2) If the target is in a defensive style: Endurance / (10 or 5 with Endurance perk) + (shield skill / 10 if the shield perk is taken and there is a shield). The second part cannot exceed 30%

- 3) Free-handed defense. If the melee perk is taken, the target has no shield and a one-handed weapon:

(Dexterity/20 + skill/20). If another melee perk is taken and the target has neither a shield nor a weapon: (Dexterity/20 + skill/10).

The stealth coefficient is only applied if the player has performed a stealth attack - more details in the stealth section .

Knockdown coefficient is applied only if the target is KO'd or Knocked Down. Equal to 25% or 50% with the Strength perk.

Racial Coef . Additional damage to Undead and Daedra equal to Sorcery/10 - only if the corresponding perks are taken.

Summon Multiplier - Only applies to creatures summoned by the player, and those summoned by those summoners. Equal to 60% or 75% with the Sorcery perk. Does not apply if the player is attacked.

One-shot protection.

If your max health is ≥ 50 and you have the Fortune perk and your current health is full, you cannot take lethal physical damage.

Combo attacks

A combo attack is a very fast attack that uses the momentum of the previous attack. In order to perform a combo attack, you must begin a new swing after the moment of impact of the current attack, but before the hand with the weapon returns to its original position. In this case, the direction of the new attack must be different from the current attack (with the exception of slash attacks - they can be spammed).

In fact, combo attacks are available for any movements except for endless repetition of piercing or chopping blows.

Combo attack gains additional multiplier for swing speed =
 $100\% + \% \text{ of previous attack swing} * \text{Coef.}$

* 50% if attack is started while in hitstun

Coeff = 0%

+50% with Speed perk

+50% with weapon perk

+50% for one-handed weapons with a free left hand (only with the Dexterity perk)

+50% for one-handed weapons if the previous attack was a second weapon in the other hand (only with the Dexterity perk)

Combo series

Do you like to click on your enemy with dozens of similar attacks? Yes, please! However, true masters of combat perform complex combos and receive solid bonuses for this. To make a combo means to deliver a series of as unpredictable blows as possible, trying to change the direction of the attack each time. A slash with a left weapon and a slash with a right weapon are considered different directions. You will have 1.5 seconds from the moment of the last blow to continue the combo series. When the timer expires, the combo rating is reset to 0. This time can be increased by 0.5 seconds if the speed perk is taken and by another 0.5 seconds if this is an attack with a sword and the swords perk is taken.

You get -2 to your rating if your hit is the same as your last hit. You get -1 to your rating if your current rating is higher than 2, and the hit you landed is the same as your second-to-last hit, but if your current rating is not higher than 2, then it does not change. This means that it is enough to change 2 types of hits to keep your combo rating at 2, getting average bonuses, but to go higher, you need to significantly complicate the combo. You get +1 to your rating if your hit is different from both your last and second-to-last hit.

The rating cannot fall below 0 and cannot rise above the limit. The limit is $3 + \text{Skill}/50 + 1$ if a special weapon perk is taken. That is, at 100 skill with a perk there will be 6 maximum rating. At the same time, the effective rating for bonuses cannot exceed 4, but if you take the speed perk, this limitation is removed.

Cretes

Critical Chance for Physical Attacks = -10% for the player or 10% for everyone except him
+ Attack Bonus / 4

- + Weapon Skill / (20 or 10 with weapon perk)
- + Dexterity / (10 or 5 if Dexterity perk is taken)
- + Luck / (20 or 10 if the Luck perk is taken)
- + 10% if the attacker is in an aggressive style and the speed perk is taken
- + Penalty if the target is in an aggressive style: +10% (not taken into account if the condition of the signature perk of medium armor is met) + another 10% (not taken into account if the agility perk is taken)
- + Combo Rating* (3 or 5 with Agility perk)
- + Missing % of target's stamina * (10 or 20 if the attacker has the agility perk)
- + Acrobatics / 10 (only for melee weapons if the player is in a jump and the Acrobatics perk is taken)
- + 20% – Unarmored Combat Skill / (10 or 5 if Unarmored Combat perk is taken). Only for the player if they hit an unarmored area. Cannot be below zero.
- Armor Skill / 10. Only for the player with the corresponding armor perk if they hit a piece of armor of this type.
- (Stamina + Target's Dexterity) / (20 or 10 with Stamina perk)
- Target Luck / (20 or 10 with Luck perk)
- Armor / 10
- 1% for each piece of heavy armor if the perk is taken and you are stationary
- + Additional Crit Chance for Weapon Mastery

Critical Damage = 30%

- + 10% if the Dexterity perk is taken
- + 10% if weapon perk is taken
- + Crit chance – 100 (only if crit chance is above 100%)

The final critical damage is randomized from 100% to 200% of its value.

That is, at 50% crituron, your final critical damage will fluctuate between 50% and 100%.

Stamina Damage from Physical Damage

Added new mechanics - when receiving physical damage, part of the stamina is also lost proportionally to the damage received. Stamina cannot drop below 0.

Stamina consumption = 200%

- 50% with Target Endurance perk – player only
- 50% with armor perk if the hit is on the corresponding piece of armor - only for the player
- +100% if the player is in a defensive style or standing still if the conditions of the Heavy Armor signature perk are met. This penalty is cancelled if the conditions of the Medium Armor signature perk are met.
- +50% for mace or hammer attacks if the Crushing Weapons perk is taken

Knockdown

When dealing damage with a physical weapon, there is a chance to knock down the enemy.

Knockdown Chance = Base * Coefficient - Target's Agility * 25% (or 50% with Agility perk)

Base = % damage from max health (final physical damage taken into account)

- 10% (does not apply if the attacker has the Strength perk and his swing is higher than 95%)

The base cannot be higher than 40%

Coefficient = 100%

- + (100% - % target stamina + % target load) * (1 or 0.5 with Endurance perk)
- +50% if it's a hammer or mace strike - only if the Crushing Weapon perk is taken

The final knockdown chance cannot be higher than the damage.

If physical damage has dealt so much damage to the target's stamina that it has dropped to 0, the knockdown chance is multiplied by 2.

If you have the special Agility perk, you will be able to **instantly get up** from a knockdown by pressing the dash/dodge button. This trick costs stamina: $100 * (100\% + \% \text{ load})$

Hitstan

The era of mindless speed clicking is over! The hitstun mechanics are no longer absolute - the probability of stunning an enemy when hitting now depends on many parameters.

Hitstun Chance = Base * Coef + Knockdown Chance (but only if it is above 0)

Base = 5 * % damage from max health (physical damage before shields is taken into account)

If the attacker is not a player, the Base cannot be lower than 3x damage.

If it is a punch, the base is 5 * % stamina damage from maximum health.

Coefficient = 100%

+ Critical Damage / 2 (if a critical hit was made)

+ (Strength + Dexterity + Weapon Skill) / (20 or 10 if Strength perk is taken)

+20% if the attacker is in an aggressive style and the Strength perk is taken

+20% on full swing of a slashing attack if the Strength perk is taken

+30% if the target is in an aggressive style (not taken into account if the condition of the signature perk Medium Armor is met)

+ Combo Rating * (5 or 10 with Dexterity perk)

- 20% (only for a player with the corresponding armor perk if the hit is on a piece of armor of this type)

- 1% for each piece of heavy armor if the perk is taken

- Target Endurance / (10 or 5 if Endurance perk is taken)

- Target Dexterity / (10 or 5 if Dexterity perk is taken)

- Target strength / 10 if perk is taken and target is stationary

+ Additional hitstun chance for weapon mastery

However, if physical damage has dealt so much damage to the target's stamina that it has dropped to 0, then the hitstun chance is always 100%.

If you take the signature perk Dexterity, you are automatically released from hitstun when you dodge (or dash enhanced by dodge).

Weapons Mastery

Each weapon has its own strengths. The higher the weapon skill, the more they are revealed. To open bonuses, you first need to take the corresponding weapon perk.

Long blades . Rhythm of battle. Every third hit deals much more damage in the amount of 50% of the skill, and if an additional perk is taken, it adds 50% of the skill to the hitstun chance and 10% of the skill to the crit chance. But the time between attacks for a successful combo is very limited: 0.8 seconds + Skill/250 if the perk is taken (for NPCs, the time is 1.5 + skill/200).

Axes . Berserker's rage. With each new blow, the damage inflicted increases, but inaction leads to a decrease in rage charges. Additional damage is equal to 3% of the skill for each rage charge. If the perk is taken, then you get a bonus critical chance in the amount of 2% of the skill for each rage charge. Maximum 5 charges (10 if the perk is taken), every 1 (+ skill / 200 if the perk is taken) seconds you lose 1 charge (for NPCs, the time is 2 + skill / 100). If the perk is taken, then you immediately get +5 rage charges when killing an enemy with an axe. Perfect for protracted battles.

All blunt weapons . Armor penetration. Armor multiplier is reduced by Skill * 10% (or 30% with perk).

Maces and hammers .

25% (or 50% with perk) from skill to hitstun chance. Good against heavily armored heavyweights.

Staves . Power of the mind. The more % of mana you have left, the more damage you deal. Up to +30% damage at full mana per 100 skill. The choice of a true mage. Or a combat over-spirited monk.

Short blades . Finishing moves. The less health the enemy has, the more damage is inflicted. Up to +30% additional damage per 100 skill. If you take an additional perk, you will receive a bonus to crit up to 20% of the skill proportional to the enemy's missing stamina. The choice of an assassin.

If the signature perk is taken and the swing value is less than 30%, then you instantly return your hand to its original position after an attack and are ready to carry out the next attack.

Polearm . Lever mechanics. The greater the distance to the target at the moment of impact, the greater the damage. Up to +20% additional damage per 100 skill and 200 range, starting from 100 range. Works great against large targets.

Distance below 100 on the contrary reduces damage in the amount of:

$\text{Missing Range} / 2 * (1 - \text{Skill} / (300 \text{ or } 100 \text{ with special perk}))$

If you take the additional perk, you get +10% to critical strike when performing a piercing strike with a full swing.

Bows . Sniper shot. The greater the distance to your target, the greater the damage dealt. Bonus = skill * distance / 20000. At 100 skill and maximum distance, you can get +35%, the main thing is to hit the target.

Crossbows . Armor Piercing . Heavy bolts will definitely please tanked heavyweights. Armor multiplier is reduced by Skill * 20%

And also if you take an additional perk, you will get a bonus to damage when shooting from a distance of up to 1000. Up to +20% damage when shooting at point-blank range at 100 skill. This perk will also give a bonus to hitstun when shooting from a distance of up to 3000. Up to +50% chance of hitstun when shooting at point-blank range at 100 skill.

Throwing . The hand of a master. With proper aim, you become better and better at hitting your target in vulnerable spots. With each successful throw, you gain charges that increase your damage, but a moment of hesitation - and the combo is interrupted, and the charges are reset - do not let this happen, throw all your projectiles right on target! Additional damage is equal to 3% of the skill for each charge of fury. Maximum 5 charges (10 if the perk is taken). You have 1 (+ skill / 200 if the perk is taken) seconds to continue a successful series of throws (for NPCs, the time is 2 + skill / 100).

Shields . Counterattack. You have 0.4 (+ (block skill + Dexterity)/1000 with perk) seconds after a successful block to counterattack and deal much more damage (+20% of skill). If you take an additional perk, you also get +50% of skill to hitstun chance and +10% of skill to crit chance. To do this, you will have to calculate the moment of attack very precisely.

Stamina consumption during attacks

Stamina Cost = Base * Swing Factor * Load Factor

Base = 5 for one-handed or 10 for two-handed and fists

+ weight of the weapon

* 100% - 25% (with Endurance perk) - Weapon Skill * 25% (with Weapon perk)

* 1 + Glove weight (not higher than 10)/10 – used only for fist attacks

Swing coefficient for a player = swing % (but not less than 25%)

Swing coefficient for all others = swing % * 50%

Load Factor = 100% + Load % * (25% or 10% with Athletics perk)

Injuries

If a character receives physical damage equal to 5% (10% with the Endurance perk) of their maximum health (not lower than 100) or more, they are injured, meaning their Strength, Endurance, Dexterity, Speed or Intelligence are damaged (random choice).

Injury magnitude = Random from 1 to max

Maximum = Percentage of damaged health (not less than 100)

* (50% or 100% with Strength perk for weapon attacks only)

+ Critical Damage / 10

– (Stamina + Luck) / (40 or 20 with Luck perk)

Damaged characteristics will have to be restored with magic.

Fight with two weapons

Equip a one-handed weapon with the Shift button held down (default) – and it will be remembered for the left hand, otherwise it is automatically remembered for the right hand. If you have weapons remembered for both hands, then you go into dual-wield mode. You can also go into (or out of) this mode at any time convenient for you by pressing a special button. Press this button together with Alt to forget a weapon for the left hand.

In dual wield mode, you can perform 3 basic attacks:

- 1) Right hand chopping attack
- 2) Thrust attack with the right hand
- 3) Cutting attack with the left hand

You also have access to double combo attacks. In order to perform a double attack, you must begin swinging your second hand before the attack with your first hand ends. Types of double attacks:

- 1) Any attack with the right hand + Cutting attack with the left hand
- 4) Cutting attack with left hand + Any attack with right hand

If the Speed special perk is taken, your maximum combo series is increased by 1 while you are in dual wield mode.

Fist fight

Earlier we calculated the physical damage for a punch.

Stamina Damage = Physical Damage

* (300% or 350% with Martial Arts perk) – (0% or 50% with Target Endurance perk)

* Coefficient

Health Damage = Physical Damage

* 50% or 100% with Martial Arts perk

* Coefficient

* 50% - if the blow is not knockout

Coefficient = 100%

+ Crit Coefficient

– Defense coefficient (all components except penalty for the attacker)

+ Racial coefficient (similar to weapons)

+ Stealth coefficient (similar to weapons)

A knockout blow is a blow that would have reduced the target's stamina below 0. However, stamina cannot be reduced below 0 until the target's health is below 30%.

Hitstun chance for fists = $2 * \text{stamina damage} / \text{target's max health}$

* all the same modifiers as for weapon damage

If the hit is a knockout, the target is always sent to hitstun, and the hitstun chance is reduced by 2 times and becomes a chance for stunlock.

Stunlock is the same as hitstun (inability to move and start attacks and casts for 1 second), but cancels already started attacks and casts (unlike hitstun, which allows you to complete started attacks and casts).

Kick

Assign a button to kick (you can also use the middle mouse button). Pressing it will perform a quick kick that will damage the enemy you are looking at, drain some of their stamina, and push them away.

Kick range = $50 + \text{Dexterity} / 2$ (but not higher than 50) + 20 (if the Martial Arts signature perk is taken).
Total maximum range = 120.

If you are not looking at the enemy, the closest enemy (or any target if aggressive mode is enabled) within the kill zone will be found, the angle of which is 90 degrees (or 200 if the Martial Arts perk is taken).

Kick costs your stamina = 30

+ Weight of boots no more than 30/3

+ Percent Load * (20 or 10 with Athletics perk)

- 5 with Endurance perk

– Martial Arts / 10 (with Martial Arts perk)

The cost of a kick cannot be lower than 10. However, if an acrobatic push was performed at the moment of the kick, the cost of the kick is reduced by another 10.

After you have performed a kick, you will need time to **recharge the kick** : 2 seconds

– 0.5 with Speed perk

- Speed/100
- + % fatigue * (0.5 or 0.2 with Athletics perk)
- + % load * (0.5 or 0.2 with Athletics perk)
- / Armor multiplier from attack speed formula

The kick's cooldown cannot be less than 1 second, or 0.5 seconds if the Martial Arts signature perk is taken.

Damage Factor = 100%

- + Force coefficient
- + Skill Coefficient
- + Bonus coefficient
- + Dash coefficient
- * Stamina Coefficient
- * 100% + Crit Rate

Strength coefficient = Strength (up to 500) * (0.3 or 0.5 with Strength perk)

The remaining coefficients are similar to the melee damage formula.

Health Damage = 5 + Boots Weight (max 30) / (12 or 6 with Martial Arts perk)

- * Damage coefficient
- * 50% or 100% with Martial Arts perk
- + Kinetic bonus
- * 150% or 200% with the Strength perk - applies if the enemy is knocked out

The kinetic bonus is added if the special perk Change is taken - you spend mana on it.

Magnitude = Will (not higher than 500) * 10% + Change * 30%

The magnitude can be manually limited by you in the mod settings.

Bonus = Magnitude * Caster Power (Changes) * (100% or 125% with Willpower perk)

Manacost = Magnitude / (3 or 4 with Intelligence perk)

The final damage is reduced by the enemy's armor according to the standard formula.

However, if the enemy had a shield and was facing the player and was not in hitstun, then the shield will take all the damage.

Stamina Damage = 10 or 15 with Martial Arts perk

- * Damage coefficient
- + Physical damage dealt after armor is taken into account
- If the blow hits the shield, the stamina damage is multiplied by 50%.
- Also stamina damage is increased by the weight of the shield (10 for summoned)
- * 50% - Block Skill * 30% (not less than 20%)

Stamina damage is only applied if the enemy is not knocked out yet. If stamina were to drop below 0, it would only drop to 0, but the enemy would receive hitstun.

The enemy is thrown back with momentum according to the formula:

Impulse = 250 + Force Coefficient * 5 + Dash Coefficient * 10

- * Stamina Coefficient
- * 150% or 200% with Martial Arts perk
- + Kinetic bonus * 20
- Enemy's endurance
- Enemy agility
- / Enemy mass

Weight = Height ^2 (not less than 5000) / 10000

- * 75% if the enemy is humanoid or 100% if not
- * 100% + armor/2
- * 200% if the blow hits the shield

The impulse cannot exceed 3000, and for the knockback effect to work, the impulse must be at least 100.

When you kick an enemy, your combo timer is reset and you can continue the combo.

When you kick an enemy, you gain melee experience based on the stamina damage dealt and the enemy's level.

Throwing weapons

While attacking with a melee weapon, hold down the right mouse button (default) and the weapon will be thrown at the target.

Previously we calculated the physical damage of a thrown weapon.

Weapon Hit Damage = Physical Damage * Critical Multiplier

Critical chance and critical damage are calculated using the same rules as for thrown weapons.

Damage is reduced by the target's armor according to the standard formula.

We calculated the initial flight speed using the formula for throwing weapons.

Throwing a weapon is conveniently combined with the projectile control effect to improve controllability in flight and get the ability to return the weapon to your hands. In this case, you spend mana in the amount of $5 + \text{weapon weight} / 2$. Mana cost is reduced by 2 times if the Intelligence perk is taken.

If the thrown weapon was under your control at the moment of throwing, then when you press the special button it will start returning to you. Return speed =

$200 + \text{Will} + \text{Alteration Skill}$

* 100% or 200% with Changes perk

If the special option is enabled, then when the weapon hits the target, it will automatically begin to return to you.

Changing the grip of the weapon

You can change the grip of a two-handed weapon to one-handed and vice versa by equipping it with a certain button held down.

The same weapon, if taken in both hands, will deal more damage, and the attack speed will increase. Keep in mind that two-handed and one-handed weapon grips are controlled by separate perks.

Whenever possible, NPCs will change their grip from one-handed to two-handed (for example, when their shield breaks).

Roundhouse Kick

If you have the special Strength perk, your fully charged slashing power attacks with two-handed weapons will hit everyone around you except allies. The radius of damage is proportional to the range of the weapon. The damage is 50% of the physical damage at the time of the attack.

Damage is reduced by enemy armor according to the standard formula.

However, if a circular strike hits an enemy while they are attacking with a melee weapon, no damage will be dealt and their attack will be interrupted (i.e. the player's weapon hits the enemy's weapon).

All enemies hit are also knocked back with force.

Damage * 1000

* Weapon coefficient (200% for crushing, 100% for other)

* $(1 - \text{angle to target} / 180)$

/ Target height (not less than 50, for humanoids 100)

Strength cannot be below 400 or above 1000.

Shooting and throwing

When you shoot a bow, your hands start shaking, which reduces your accuracy. The shaking gradually increases over 4 seconds to the maximum level. However, if you hold your breath (press the right mouse button), the shaking will gradually decrease to zero. Holding your breath consumes 20 (or 10 if you have the Athletics perk) stamina per second. In the settings, you can enable automatic holding of breath when shooting.

Tremor value = $5 + \text{Onion weight} / 4$

* $1 - (\text{Strength} + \text{Dexterity} + \text{Accuracy}) / (600 \text{ or } 400 \text{ if the Accuracy perk is taken})$

The sum of Dexterity, Strength and Accuracy cannot be higher than 300. Ideally, you only get 25% tremor.

When you shoot or throw, your projectiles have a slight **spread** :

$100\% - (\text{Dexterity} + \text{Accuracy}) / (300 \text{ or } 100 \text{ with Accuracy perk})$

+ 100% – (Dexterity + Accuracy) / (400 or 200 with Accuracy perk) – for shooting on the run

Ideally, there is no additional spread at all.

By taking the Accuracy signature perks, you will gain the ability to perform alternate shots.

For a bow - multi-shot . While holding the bowstring, press the right mouse button - and you will release a series of weakened, less accurate arrows. Maximum 5 arrows at a time. The tension of each arrow = 50%.

These shots have been given an additional spread of 100% of normal.

Stamina cost per shot = Bow weight + 10

* 3 – 0.5 (with Endurance perk) – 0.5 (with Accuracy perk)

For the crossbow - accelerated reload . Make a shot with the right mouse button pressed to perform accelerated reload. In this case, the reload speed will be multiplied by

$2 + \text{Dexterity}/50$

In this case, you will spend stamina equal to $30 - \text{Crossbow Speed} * 10$ (but not less than 10)

After a quick reload, your next shot will be weakened to 50% of normal due to the bowstring not being fully drawn. However, if you do not fire for $(3/\text{Crossbow Speed})$ seconds, the shot will be at full power.

In the settings, you can enable the mode of constant use of accelerated reloading without holding down the mouse.

For throwing weapons - fan throw . While holding the swing, press the right mouse button - and you will throw a handful of weakened and less accurate projectiles at once. Maximum at a time: 5 stars, 4 darts, 3 knives, 2 hatchets.

Throwing power = 25%

+ Time since last fan throw / 4

The power of such a throw cannot exceed 75% and reaches its maximum 2 seconds after the last fan throw.

These throws have been given an additional spread of 100% of normal.

Stamina cost per throw = Projectile weight + 10

* 5 – 1 (with Endurance perk) – 1 (with Accuracy perk)

Shield Block

Shield Block Chance = Base * Stamina Coefficient * Angle Coefficient - Attack Coefficient

Base = Block Skill/2 + Dexterity/5 + Luck/10

* 100% or 125% with Block perk

+ 75 or 100 with Block perk - only for the player in active block mode (holding the swing) and only if the player is not in hitstun

+ 100 - for everyone except the player - only if the shielder does not attack or holds the swing and only if he is not in hitstun

Stamina coefficient is a linear interpolation from 25% (or 50% with Block perk) to 100% depending on % stamina

Angle coefficient = $1.25 - \text{deviation of gaze to the attacker} / \text{maximum angle}$

The angle coefficient cannot be lower than 0 and higher than 1.

Maximum angle on the right side = 20 (or 30 for active locking mode)

Maximum angle on the left side = 60 (or 40 for active locking mode)

The maximum angle is multiplied by 150% if Block's signature perk is taken.

In simple words. Want to block successfully? Then try to turn your shield to the enemy, not your ass.

Attack Ratio = Weapon Skill/2 + Dexterity/5 + Luck/10

* 100% or 125% with Dexterity perk

* 150% – % attack swing

Heavy attacks are slower and therefore easier to block than fast attacks.

Blocking with a shield **costs stamina** equal to Shield Factor + Hit Factor

Shield coefficient = shield weight (10 for summoned)

* 50% – Block Skill * 10% or 25% with Block perk

Shield coefficient cannot be lower than 25%

Hit coefficient = damage

* 100% – Block Skill * 25% or 50% with Block perk

The impact coefficient cannot be lower than 50%.

If stamina drops to 0, the blocker is sent to hitstun.

The shield takes damage equal to 100% of the attack's physical damage (or 75% with the Block perk).

Active Block also reduces damage from elemental magic (more details in the magic section).

Blocking arrows

Now has a chance to block arrows, bolts, and projectiles, reducing their damage to zero.

Projectile Block Chance = Base * Stamina Coefficient * Angle Coefficient - Attack Coefficient

Base = Block Skill / 2 + Dexterity / 4 + Luck / 4

* 75% or 100% with Block perk

+50 or 75 with Block perk - only for the player in active block mode (holding swing) and only if the player is not in hitstun

+ 75 - for everyone except the player - only if the shielder does not attack or holds the swing and only if he is not in hitstun

Stamina coefficient is a linear interpolation from 25% (or 50% with Block perk) to 100% depending on % stamina

Angle coefficient = 1.25 – deviation of the projectile's impact point from the shield point / maximum angle

The angle coefficient cannot be lower than 0 and higher than 1.

The player's shield point is centered when in active block mode, or 45 degrees to the left when the shield is down.

The shield point for everyone else is always 15 degrees to the left.

Max angle = 30 or 45 with Block's signature perk.

Shoot at the left right side of the shield (i.e. aim to the left) to reduce the chance of your arrows being blocked.

Attack Ratio = Accuracy Skill / 2 + Dexterity / 4 + Luck / 4

* 75% or 100% with Accuracy perk

Blocking with a shield **costs stamina** equal to

Damage

* 100% – Block Skill * 25% or 50% with Block perk

The multiplier cannot be lower than 50%

If stamina drops to 0, the blocker is sent to hitstun.

The shield takes damage equal to 50% of the projectile's physical damage (or 30% with the Block perk).

If you hit an arrow flying towards you with your melee weapon, you have a chance **to deflect** it, reducing the damage to zero. Such blocking is only possible if the player has the special Block perk and if the projectile is flying towards you at an angle of -20 to +20 degrees.

Chance of blocking a projectile with a weapon = Block Skill + Weapon Skill / 2 + Dexterity / 4 + Luck / 4

* % stamina

* Attack speed – 0.5 (not less than 0.2, not more than 1)

– Attacker's Accuracy / 2 – Attacker's Dexterity / 4 – Attacker's Luck / 4

Successfully blocking a projectile with a weapon will trigger a Block and Weapon skill boost.

Parry

To parry an attack means to strike the enemy's weapon after he begins to strike, but before his weapon reaches the target. In this case, the parrier does not cause damage (since he intentionally did not strike the enemy himself, but his weapon). The one whose attack was parried, in the case of a successful parry, stops his attack and is thrown off balance for a short time. In the case of an unsuccessful parry, his attack continues and reaches the parrier, but loses a significant part of the damage.

Initially, you and all NPCs attack with normal attacks, which will try to parry enemy attacks whenever possible. However, you can press a special button and go into "cruel mode" - in this mode, your attacks will not even try to parry, but will always hit the enemy. If a special trait is taken, then the brutal mode becomes unavailable. You can also disable parrying for NPCs in the settings - then all their attacks will also be in "cruel mode".

You can only parry with melee weapons and only attacks with melee weapons.

Coefficient = Coefficient 1 (for the parrier) / Coefficient 2 (for the one whose attack is being parried)

Coefficient 1 = Weapon Weight * 5 + Melee Power + Dexterity / 2 + Block Skill

* % swing (+ 25% for everyone except the player)

* 50%/75% (for one-handed/two-handed) + 25% with Block perk + 25% with weapon perk + Combo Counter * 5% (or 10% with Block perk)

Coefficient 2 = Weapon Weight * 5 + Melee Power + Dexterity / 2

* % of swing

* 50%/75% (for one-handed/two-handed) + 25% with Strength perk + 25% with weapon perk + Combo Counter * 5% (or 10% with Block perk)

* Attack speed (not less than 0.25, not more than 1, only for the player)

Impulse = (Coef 1 – Coef 2) * Coef 3

Coefficient 3 = 100%

+25% with Block perk for parrying

- 25% with Dexterity perk on target

+ % target load / 4

If the Coefficient is greater than 1, the parry is considered successful. The attacker interrupts his attack and is thrown off balance for Impulse / 500 seconds. This time cannot be lower than 0.1 and higher than 1 second.

While the character is off-balance, attacks on him receive a damage bonus if the attacker has the Block perk. This bonus is 20% of the Block skill. And if the attacker has another Block perk, then the critical chance of his attacks increases by 10% of the Block skill.

If the Code of Honor trait is taken, the parry mechanics change for those cases when a player's attack is parried. In this case, you will not be thrown off balance, but you will lose stamina, and your attack will stop. That is, you can no longer break through an enemy parry.

Stamina Cost = Impulse / 20

If the player has the special Security perk, then after a successful parry, his perception of time is slowed by 1 second.

If the Coef is greater than 0.75 but less than 1, then the parry is considered normal. If a player was parried, then his attack loses all its damage, but continues. This attack can no longer parry anyone's attack, but can be parried again. If an NPC attack was parried, then this attack immediately stops. The NPC will make the next attack after a random delay.

If the Coef is less than 0.75, the parry is considered to be broken. The attacker does not interrupt his attack, but his base damage is multiplied by (1 - Coef). This attack can no longer parry anyone's attack, but can be parried again.

When an NPC successfully parries, he will instantly start his next attack with a chance to:

(Dexterity + Weapon Skill) / 2

When two weapons collide, both lose durability equal to the parrying weapon's physical damage (subject to standard weapon durability loss modifiers).

When attempting to parry, the player gains experience in the weapon skill and double experience in the Block skill.

Experience Coefficient = Normal Experience Coefficient * Enemy Attack Physical Damage / 200 * Coefficient (max 2)

Also, if a player's attack is parried, their combo attack timer will be reset if they have the Block signature perk.

Blocking with a left weapon

When you fight with two weapons, you can block enemy attacks with your left weapon almost like a shield. Every time you start a swing, you will have a small time window during which you will block enemy attacks with your left weapon. Time = 0.15 seconds

+ 0.05 seconds with Block perk

+ Block Skill / 2000

For this block to work, your gaze angle towards the attacker must be no more than 20 (or 30 with the Block

perk) degrees.

Coef = Coef 1 (for the player) / Coef 2 (for the attacker)

Coefficient 1 = Weapon Weight * 5 + Strength / 2 + Dexterity / 2 + Block Skill + Left Weapon Skill

* Linear interpolation from 25% (or 50% with Block perk) to 100% depending on % stamina

* 50% + 25% with Block perk + 25% with left weapon perk responsible for parrying

Coefficient 2 = Weapon Weight * 5 + Dexterity / 2 + Melee Power

* % of swing

* 100%/150% (for one-handed/two-handed)

If the Coef is greater than 0.75, the block is considered successful. The attacker deals zero damage.

If the Coef is less than 0.75, the block is considered a failure. The attacker's base damage is multiplied by (1 - Coef)

Blocking **costs stamina** equal to Weapon Factor + Hit Factor

Weapon coefficient = weight of left weapon

* 100% - Block Skill * 20% or 50% with Block perk

Weapon coefficient cannot be lower than 50%

Hit coefficient = Weight of attacker's weapon

* 150% or 100% with Block perk

* Coef 2 / Coef 1 (not higher than 2)

If stamina drops to 0, the blocker is hitstunned for 1 second.

When blocking, the player's left weapon's durability is reduced by potential enemy damage * 20% (or 10% if the player has the Blacksmith special perk).

When attempting to block, the player gains experience in the Block skill.

Experience Coefficient = Normal Experience Coefficient * Potential Enemy Attack Damage / 100 * Coefficient (max 2)

For a successful block with a weapon, the same counterattack rules apply as for a block with a shield.

Swing for NPCs

The actual swing of NPCs is randomized from 10% to 100%, which means that more than half of the enemy attacks will be practically useless. Now this annoying misunderstanding has been eliminated. For close combat, enemies receive a random swing strength from 50% to 100%, and long-range ones - from 75% to 100%, except for crossbows, which always receive 100%. At the same time, the swing animation is now available for NPCs and humanoid creatures.

Improved AI

Now enemies won't run away from you at breakneck speed, as soon as there is a small difference in height between you and them. If the hero is out of reach, NPCs and creatures capable of carrying weapons will pick up boulders from the floor and throw them at him, not allowing him to relax, and magic-oriented creatures will throw weak combat spells.

If enemies are not affected by the fear mechanic, they will flee the battlefield only if their health drops below 10%.

Fixed numerous bugs with stuttering, when NPCs stood like a pillar, although they were in battle.

PvP mode

Now enemies will try to do the same as you - dodge your attacks. This mode can be disabled in the settings.

The chance to perform an evasive maneuver is triggered when the player shoots a weapon or magic in the direction of the NPC, as well as when dealing physical damage to the player in melee combat. In this case, the NPC must not be in hitstun, knockdown or flying.

Chance = Dexterity + Evasion

+30% if enemy can carry a weapon

Movement speed = 100 for jumping away from projectiles or 200 for normal dodge maneuver

+ Speed * 2 + Chance

* $100\% - \% \text{ Load} * 80\%$

* $50\% + \% \text{ stamina} * 50\%$

The final speed cannot be higher than 500 during normal maneuvering or higher than 400 when dodging projectiles.

Running attack

Enemies can now attack with a running jump attack. This option can be disabled in the settings.

Every second when an enemy is not in hitstun and is running straight at you, the jump counter increases by 1 (up to 6), otherwise it resets to 0.

The enemy performs a jump attack when the following conditions are met:

1) Jump counter is greater than 1

2) The jump target is at a distance above 250 and below the maximum.

3) The enemy is at a distance of more than 200 from you (this limit is not higher than the Speed Coefficient)

Maximum = Speed Factor. Maximum cannot be lower than 350 or higher than 1200.

Speed coefficient =

$100 + \text{Speed}$ (for humanoid enemies) or

$(\text{Base Speed} + \text{Speed}) * 1.5$ (for everyone else)

* $300\% + \text{Dexterity (up to 100)} + \text{Jump Counter} * 25\%$

* $50\% + \% \text{ stamina} / 2$

* $100\% - \% \text{ load}$

If the enemy is humanoid, he will perform an attack with 100% swing at the moment of jumping.

The jump is performed with anticipation relative to the target's movement. The direction of the jump is adjusted depending on the difference in height between the attacker and the target.

The Way of the Maniac

Now you can take away weapons from knocked out opponents. But if this is not enough for you - turn on the maniac mode in the mod settings - and then you will completely undress the knocked out enemies. However, for this they must be really badly beaten.

If the player's Dexterity is greater than $(50 + \text{target's Dexterity} * \% \text{ health})$, you will be able to take 1 of their equipped items of your choice. The CD for attempting to undress is

$(5 \text{ or } 3 \text{ seconds with the Dexterity special perk}) - \text{Dexterity}/100$

CD cannot be lower than 1 second.

Realistic projectiles

Sticking arrows

Want to test your video card for durability? Then enable this option in the settings - arrows, bolts and throwing weapons will remain in the ground and objects, and you can collect them. When loading a save, arrows are cleared - have time to pull them out in time!

Gravity

Now affects physical projectiles as intended. Arrows will no longer fly off into space.

Return of shells

When hitting a target, the projectile may break or remain on the target.

Chance to survive = projectile durability

* $\text{Luck} / 2 + 50\%$ with Luck perk (for player)

* 150% for everyone except the player

Enchanted projectiles will lose their enchantment.

Projectiles fired by summoned creatures cannot survive.

Crossbow tension

Originally, crossbows required holding the attack button for a while to fully draw the bowstring. Now, the crossbow's shot power is always 100% (excluding the alt-fire mode).

Point blank shooting

Fixed an ancient game bug. In the original, when shooting point-blank, the projectile appeared behind the target, which made it impossible to hit: arrows simply flew through the target. Now it appears in front of the target - cornered archers will no longer be defenseless targets.

Pushing off walls and objects (climbing)

The climbing function is called by the same button as the kick. However, you do not have to stand on the ground. Therefore, it is recommended to assign the same button for climbing as for jumping.

You push off from the object you are looking at. You can also push off from creatures. In this case, if you are moving to the right, you can push off from the wall to your left, and if you are moving to the left, then from the wall to your right. You always push off up + in the direction of your movement.

The maximum **distance** to the object is $50 + \text{Dexterity}/2$ (but not higher than 50) + 20 (if the Acrobatics signature perk is taken)

Stamina cost for each knockback is 20

+ Percentage of encumbrance * $(30 - \text{Athletics}/10)$ if the Athletics perk is taken

– Acrobatics/10 if Acrobatics perk is taken

Stamina consumption cannot be lower than 10.

Repulsion force = $100 + \text{Acrobatics}/2 + \text{Strength}/2$ (sum not exceeding 200)

* 1 or 0.75 if Acrobatics perk is taken

* Stamina coefficient for jumping

If you take the special Acrobatics perk, then when pushing off you will zero out your falling momentum - in essence, this is a perk that distinguishes a rock climber from an ordinary person, who can also climb over fences, but cannot climb a vertical wall.

For each push you gain 0.2 Acrobatic Experience.

Other

Auto equipment

When equipping a bow or crossbow, if you don't already have arrows or bolts equipped, they will be equipped automatically (if present in your inventory).

auto-equipment of the shield in the mod settings , and then when you change weapons to one-handed, the shield will be automatically equipped.

Improved interface

A new bar showing the enemy's stamina if the intellect perk is taken. Another bar is an indicator of your shield status.

Dry firing bug fix

The shooters may get bugged and stop shooting - this is a bug in MSR. If this happens, turn on the module that fixes this bug.

Lava Damage

Lava now deals 30 fire damage per second every 2 seconds. Fire resistance now protects.

MAGIC

Advanced Magic. The changes affect both the hero and NPCs, and all creatures. If you want to receive calculation messages to better master the new game mechanics, enable the casting and magic power message options in the settings.

The Power of Magic

The magnitude of spells and enchantments is multiplied by Magic Power

Magic Power = 100%

- * Caster Multiplier
- * Stamina Multiplier
- * Magic charge multiplier
- * Potential charge bonus
- * Scroll coefficient
- * Weighting coefficient of projectiles
- * Racial Damage Multiplier
- * Summoned creature multiplier
- * Friendly Fire Multiplier

The caster multiplier depends on the caster's stats. It is equal to Caster Power

+ Critical Damage

Player's Caster Power = $50\% + 200 * \text{Stat Sum} / (\text{Stat Sum} + 600)$

Sum of stats = 0

+ Primary Skill * (50% or 75% with perk)

+ Secondary Skill * (0% or 25% with perk)

/ 2 if it's an enchantment

+ Enchanting Skill * (25% or 50% with perk) (only if it's an enchantment)

+ Will (not higher than 500) * (50% + 25% if the Will perk is taken + 25% if the trait is taken)

The skill values in the formula are no higher than 200, the sum of the stats is no higher than 600. Thus, the player's caster power cannot be higher than 150%. [Graphs](#): purple f3 is the caster power for the player, black p2 is for everyone else.

The primary skill depends on the spell's school, and the required perk to enhance it is different for each school and for each element from the Destruction school.

The secondary skill depends on the magical effect. For elemental magic, it's the Alteration school, for poison and absorption - Restoration, for buffs, debuffs and domination - Illusions, for everything else - Mysticism. The required perks are also different.

For all but the player Caster Power =

$50\% + \text{Will} * 50\% + \text{Primary Skill (or Enchantment)} * 50\%$

Caster power for NPCs cannot be higher than 200%

Critical damage is only awarded if magic has dealt a critical hit.

Stamina multiplier is based on the caster's current stamina percentage. Affects the player only.

This is a linear interpolation from (50% or 75% with Willpower perk) to 100% depending on % stamina * (125% or 200% with the corresponding magic school or enchantment perk (for enchanted items))

The Magic Charge Multiplier is only applied when the player is charging their magic.

The potential charge bonus is awarded to the player's non-permanent enchantments (except scrolls and arrows) if he has taken the special enchantment perk.

Equal to $100\% + \text{Current Potential Charge} / 50$

Scroll coefficient affects only scrolls and is equal to 100%.

* 120% - only if the enchantment perk is taken

* Sum of spent potential charge and mana / Required consumption (only taken into account if less than 100%, this is a penalty for lack of resources to read the scroll)

Weighting coefficient of projectiles

If you hold down a special mouse button (by default, the right one) while casting a magic projectile and have the special Alteration perk, you increase the spell's power with an additional weighting coefficient, which is equal to 105%. At the same time, the projectile begins to be subject to gravity and is not subject to projectile

control. This gravity weakens in proportion to the projectile's magic power.

Racial Damage Multiplier

Only works on elemental magic cast by the player, and only against undead or daedra - provided the player has taken the appropriate perks. Always equals 110%.

Summoned Creature Multiplier - Only applies to creatures summoned by the player, as well as those summoned by these summoners. Equal to 50% or 60% with the Conjunction perk.

Friendly Fire Multiplier - Only applies to negative magic against everyone except the player if both the caster and the target are enemies of the player. Equal to 50% for elemental, poison, and chaos damage. Equal to 0% for everything else (meaning negative magic stops working).

Caster Power

Some magic processes will reference this multiplier, with the skill listed. It consists of two multipliers: the Standard Stamina Multiplier for that skill, and the Caster Power for that skill (75% of the skill without the perk, and 100% with the perk).

Radius bonus

Many magical processes will call this general function.

$50 + \text{Will (not higher than 100)} / 2 + \text{Alteration Skill}$
 $/ 40 \text{ or } 20 \text{ with perk Changes}$

Magic Crits

Spells and enchants can now crit (potions can't). **Crit chance** = 0%

+ 10% for everyone except the player

+5% with Intelligence perk - only for the player if he is focused

+5% with Will perk

+ Luck (up to 200) / 20 with Luck perk

The remaining components only affect harmful magic:

+ Caster attack bonus (max 200) / 10 with Will perk

+ Caster Destruction Skill (max 200) / 20 with Destruction perk

+ Missing target stamina percentage * (10 or 20 with Intelligence perk)

– Will of the target / (20 or 10 with the Will perk)

– Target Luck / 20 with Luck perk

– Target Mysticism Skill / 10 (with Mysticism perk if target is focused, i.e. hands raised for casting)

Critical Damage = 30%

+ 10% if the Will perk is taken

+10% for your damage type if you have the corresponding Destruction perk.

+ Crit chance – 100 (only if crit chance is above 100%)

The final critical damage is randomized from 50% to 150% of its value.

That is, with 50% crituron, your final critical damage will fluctuate between 25% and 75%.

Magic Resistance

Magic Resistance is calculated based on **Primary Resistance**:

If Primary Resist is below 0, then Resistance is equal to Primary Resist.

If the Primary Resistor is above 0, then the Resistance is calculated using the [formula](#) :

For the player and everyone with a primary resistance below 500 (blue graph): $\text{Resist} * 100 / (\text{Resist} + 100)$

So, 50 resistance will only give you 33% real protection.

100 = 50%

200 = 66%

300 = 75%

$400 = 80\%$

For everyone else who has 500 primary resistance and above - this means immunity. But if the NPC has gained over 700 resistance, then he receives 1% of the damage as health restoration for every 1% over 600 resistance, but not above 750 (that is, a maximum of 50% healing from the damage received) - this mechanic only works with elemental damage for certain creatures such as atronachs.

Primary Resist = Normal Resist

- + Protective bonus
- + Armor Bonus
- + Shield Bonus
- Duration coefficient
- + Extra bonuses

Regular resist

This is the normal resistance for a certain damage type (fire, frost, lightning, poison, magic), summed up from all sources. The normal resistance is affected by the magical effects of resistances, vulnerabilities and elemental shields. At the same time, the effective resistance for calculations cannot be less than -100%. This limitation eliminates the exploit with vulnerability spells.

The protective bonus is calculated using the formula:

$\text{Base} * (0.5 \text{ or } 1 \text{ if perk is taken}) + \text{Skill}/10 \text{ (if another perk is taken)}$

The base depends on the type of harmful magic.

For elements: $\text{Base} = \text{Endurance} * 0.2 + \text{Will} * 0.2$

For poison: $\text{Base} = \text{Stamina} * 0.3 + \text{Will} * 0.1$

For magic: $\text{Base} = \text{Stamina} * 0.1 + \text{Will} * 0.3$

The required perk is different for each of the 5 damage types.

The skill and the required perk to activate it also depends on the type of damage: for elements - Destruction, for poison - Alchemy, for magic - Mysticism.

For all these formulas, stats cannot exceed 500 and skills cannot exceed 100.

The armor bonus only affects elemental damage and is:

- + $2 * \text{Number of pieces of light armor} * \text{skill}$
- + $3 * \text{Number of pieces of medium armor} * \text{skill}$
- + $4 * \text{Number of pieces of heavy armor} * \text{skill}$
- * 0.002 or 0.004 with Endurance perk

For everyone else, this bonus is equal to 20% of the armor level.

The shield bonus only affects elemental magic and only if the character with the shield uses active blocking, i.e. holds the swing (for NPCs it is considered that they always use active blocking).

$\text{Additional Resistance} = \text{Block Skill} * (20\% \text{ or } 40\% \text{ if Block perk is taken})$

The shield loses strength in size

$\text{Magnitude} * \text{Duration (not less than 1)} * \text{Magic Power} / 2$

Duration coefficient

For effects that damage stamina, mana, stats and skills, as well as for effects that absorb health, mana and stamina, the duration of the effect reduces the target's resistance if the special Intelligence perk is taken.

$\text{Resistance reduction} = 3 * (\text{Duration} - 1)^{0.5}$

This works starting from 2 second duration.

So, stamina damage, stretched out over 5 seconds, will cut off 6 resistance from the enemy, and stretched out over 10 seconds – already 9.

Extra bonus for paralysis and silence

For these two effects, there is a chance to get +300 resistance - the number of paralyzes already applied * 100 (the bonus cannot be lower than 0)

$\text{Chance} = \text{Illusion Skill} * 20\% \text{ (or } 50\% \text{ with Illusion perk)}$

If the primary resistance for these two effects reaches 500, the target will gain immunity even if it is a player.

Casting speed

Spell Casting Time = Base / Speed Coefficient

Base = $1 + \text{Manacost} * 3 / (\text{Manacost} + 100)$

Speed coefficient for the player = 100%

+ Speed (up to 500) * (10% or 20% with Speed perk)

+ Magic School Skill * (20% or 40% with that school's perk)

– % load * (20% or 10% with Endurance perk)

– % of missing stamina * (20% or 10% with Willpower perk)

* Armor coefficient = 100%

+ 1% for each piece without armor per 100 skill if the Unarmored Combat perk is taken

– 1% for each piece of light armor * (200 or 100 with perk – skill)/400

– 1% for each piece of medium armor * (300 or 200 with perk – skill)/400

– 1% for each piece of heavy armor * (400 or 300 with perk – skill)/400

If the Armor Ratio is below 100%, it is further increased up to 100% by

Lightness (minus load modulus)/20

The speed coefficient cannot be lower than 50%.

[Cast time graph](#) depending on mana cost and haste coefficient.

The spell casting time is divided into 2 halves. The spell is cast exactly in the middle of the time. The remaining 50% of the time, the caster's hands return to their original position. However, if you take the special Speed perk, you can not wait for the hands to return to their original position, but start casting a new spell immediately after casting the previous one. In this case, you should not be in a hitstun state. Such an accelerated cast costs an additional stamina of $30 / \text{casting speed}$.

Speed coefficient for NPC = 75%

+ % stamina / 4

* Speed / 100

The speed coefficient for NPCs cannot be higher than 200%.

Charging spells

If you are focused (i.e. raised your hands to cast by pressing M or the activation button) - hold down LMB and then your energy will start charging, further enhancing your magic (this only affects regular spells and enchantments, but does not affect quick spells, and also does not affect scrolls).

Charging speed per second = 20%

+ Will (not higher than 300) / (10 or 5 if the Will perk is taken)

– % load * (10% or 5% if the Endurance perk is taken)

* Armor factor from casting speed formula

The charging speed cannot be lower than 10%.

At the same time, for every second of charging you **spend stamina** in the amount of 20 (or 10 if you have the Endurance perk).

When you release LMB or cast magic, the charge is reset to 0.

Magic Charge Multiplier is one of the magic power multipliers.

It is equal to $100\% + \% \text{ charge} * \text{Charging coefficient}$.

Charging coefficient = 20%

+10% with Will perk

+20% if the corresponding perks of magic schools or enchantments are taken

* 2 if there are at least 15 pieces without armor and the signature perk Unarmored Combat is taken

Ideally, without armor, you fully charge your magicka in 2 seconds and get a Charge Multiplier of 200%. However, the mana consumption for spells and charges of enchanted items will increase.

Additional mana cost per cast =

$\text{Manacost} * \% \text{ charge} * \text{Charge coefficient} * 125\%$ (or 100% if the Intelligence perk is taken)

Additional charge consumption per cast =

$\text{Charge consumption} * \% \text{ charge} * \text{Charge factor} * 150\%$ (or 100% if the Enchantment perk is taken)

Charging spells affects magic beams differently: the current % of charge is taken into account not when the beam is launched, but when each individual beam element is created. In this case, the Charging Coefficient = 10% (or 20% with the Will perk).

If you are in a spell charging state and have the special Enchant perk, you will also regenerate your Potential Charge at a charge rate of / 50. So at 50% fill rate, you will get 1% of your maximum Potential Charge per second.

If you are in a spell charging state and have the Mysticism special perk, the magic projectiles you fire will be subject to control even if you are not affected by the projectile control effect.

If you hold down the special mouse button and look at the creature you summoned when the spell starts charging, then each tick of the charging you will extend its summoning time.

Renewal Time = Charge Speed * (20% or 30% with Conjuration perk)

* Witchcraft Magic Power Multiplier

Mana Cost = Summon Effect Cost

* Charging speed / 50

* Witchcraft spell cost multiplier

That is, in terms of mana costs, it is 1.5 times more profitable to summon a creature for a short period of time and then extend its life, but this is less convenient.

Secondary effects and counter-effects

Now fire, frost, lightning, poison and chaos damage not only damage health, but also apply secondary debuffs to the target. However, you can quickly get rid of these debuffs by applying certain **counter-effects to yourself** - the coefficient of their strength is indicated in brackets.

Magnitude = Random from min to max magnitude

* Final magic power after all buffs and resistances

* 133% if the caster has the Will perk

* 150% if the caster has the corresponding Destruction perk

* 75% if the target has the Endurance perk - only for the player

* 66% if the target has the corresponding Will perk - only for the player

Secondary effects come in two types: instant and debuff.

The instant secondary effect is always applied. The duration of the instant effect is equal to the duration of the damage effect - with the exception of fire (for which the instant effect has no duration).

The debuff is only applied if the damage duration is greater than 1 second. The debuff duration is equal to the duration of the damage effect. All debuffs are additionally scaled from the target's maximum **health**, which for these calculations cannot be lower than 100.

Counter-effects

Fire

Instant effect - Flash. Chance to send target to hitstun.

Chance = Magnitude / Health * 500 * Number of seconds of fire damage (0 counts as 1)

Debuff - Burning Pain. Chance to hitstun target every 1.5 seconds

Chance = Magnitude / Health * 500

Counter effects: Frost Shield (5), Frost Aura (10).

Cold

Instant effect - Freeze. Deals damage to stamina.

Damage amount = Magnitude

Debuff - Freeze. Applies a burden.

Burden Amount = Magnitude / Health * 1000

Counter effects: Fire shield (1), Fire aura (2).

Lightning

Instant effect - electric shock. Deals damage to mana.

Damage amount = Magnitude

Debuff - Shock Convulsions. Chance to send target to hitstun every 1.5 seconds

Chance = Magnitude / Health * 500

Counter effects: Lightning shield (1), Lightning aura (2), Anti-paralysis (100).

I

Instant effect - poisoning. Deals damage to stamina.

Damage amount = Magnitude * 1.5

Debuff - weakening. Reduces 2 random stats (strength, endurance, agility, speed, intelligence, will).

Reduction amount = Magnitude / Health * 500

Counter-effects: Antidote (100).

Chaos Damage

Instant effect - decomposition. Deals damage to a random stat (strength, endurance, agility, speed, intelligence, will).

Damage Amount = Magnitude / Health * 100

However, if the damage value is less than 0.5, then this value is multiplied by the duration of chaos damage and the stat is damaged instantly.

Debuff - Exhaustion. Deals damage to stamina.

Damage amount = Magnitude

Counter-effects: Dispel magic (5).

Counter-effects

When these effects are applied, they remove a portion of a specific secondary effect depending on their power. For each secondary effect removed, the magnitude of the counter-effect is reduced by the amount of that secondary effect until it reaches zero.

Counter Effect Magnitude = Random from min to max magnitude * duration

* 200% if the Intelligence perk is taken

* Power coefficient (each counter-effect has its own coefficient)

Secondary effect magnitude = magnitude * residual duration

Readable secondary effects: Fire - Pain, Cold, Poison and Chaos damage - Stamina damage, Lightning - Mana damage.

Healing

Now, restoring health from any source except permanent effects imposes very pleasant and useful secondary effects. First, if the hero is injured, the secondary effect will restore his damaged characteristics in this order: Endurance, Strength, Dexterity, Speed, Intelligence, Will, Charm.

Stat restore amount = Magnitude * effect duration (0 counts as 1)

* 10% or 20% with the caster player's Restoration perk

* 300% – for all purposes except the player

Also, health restoration imposes an additional stamina regeneration buff.

Buff duration = effect duration.

Stamina Recovery Amount = Magnitude

* 100% or 200% with the Caster player's Recovery perk

* 300% – for all purposes except the player

* 50% if the secondary effect of healing injuries was previously activated

Featured Spells and Secondary Spell

There is a new mouse button in the settings for casting a secondary spell.

There is a button for the quick access wheel in the settings menu. To select a secondary spell, hold down the mouse button to cast the secondary spell while selecting.

Press this button with SHIFT to select the current spell for the secondary slot.

Press this button with CTRL to add/remove the current spell to the Favorite Spells list. Press this button with ALT to clear the list. Favorite spells are displayed in your magic menu at the very top.

Quick cast

When you press the Concentration button, if you have accumulated energy (it is accumulated by holding down the LMB with your hands raised for casting), then you can cast the current spell instantly. The same applies to the secondary spell - when you press the special button for quick casting of secondary spells.

energy (indicated by a green bar under the sight) are spent on the extra cast .

The spell charge multiplier does not apply to these spells.

Manacost = manacost of the original spell

+20% of mana cost if the signature perk of Intelligence is not taken

Stamina cost = original spell stamina cost

+ 100% (or 50% if the Endurance perk is taken) of the spell's base mana cost

Energy consumption per cast = 20

+ 10 if it's always a successful spell

+ Base mana cost * 100% or 50% with Intellect perk

- 10 with Dexterity perk

The chance of a quick cast is the same as for regular spells, but if the special Intellect perk is not taken, an additional penalty of 50% of the mana cost of the original spell is added to it.

You cannot use quick cast if you don't have enough stamina or energy.

You cannot quickcast if you are paralyzed (with the Dexterity signature perk you can), knocked down, knocked down, or in hitstun.

Mana and stamina cost per cast

The mana cost for casting spells by a player is equal to 150% of the base mana cost.

– Sum of stats / (Sum of stats + 200)

* Armor modifier

* 120% if it was an extra cast, but only if the special Intelligence perk is not taken

* Charge Multiplier Increase Percentage * 125% or 100% with Intelligence perk

Sum of stats = 0

+ Intelligence (up to 500) * (40% + 40% with trait +20% with Intelligence perk)

+ Magic skill (up to 200) * (40% + 40% with this school's perk + 20% with Mysticism's signature perk)

The sum of stats cannot be higher than 600.

Armor modifier = 100%

- 0.8% for each piece without armor per 100 skill if the Unarmored Combat perk is taken

+1% for each piece of light armor * (200 or 100 with perk - skill) / 400

+ 1% for each piece of medium armor * (300 or 200 with perk - skill) / 400

+ 1% for each piece of heavy armor * (400 or 300 with perk - skill) / 400

If the Armor Modifier is above 100%, it is reduced to 100% by

Lightness (minus load modulus)/2000

[Graph](#) of the dependence of the casting cost on the Sum of stats (blue c2 for the player, black c 5 for the rest) with the armor modifier k .

Also, if you take the special Intellect perk, then if you fail to cast a spell, you will get back part of its final cost in the amount of

(Intelligence + Magic School Skill) / 4, but not higher than 50%

Mana cost to cast spells for everyone except the player = 100%

– Sum of stats / (Sum of stats + 200)

Sum of stats = Intelligence + Magic Skill

The stamina consumption for casting spells is standard according to the engine formula: 50% of the final mana cost + up to 50% more depending on the load. The player's stamina consumption can be reduced, and the saved stamina will return at the moment of casting the spell. The amount of saved stamina = Mana cost * Coef. Coef =

25% if the Endurance perk is taken

+ 1% for each piece without armor if the Unarmored Combat perk is taken

The coefficient cannot exceed 50%.

Consumption of charges

Charge consumption = the same multiplier as for the cost of spells, with the only difference being that instead of the magic skill, the enchantment skill with a perk is taken - separately for weapons and for items when used.

- * Charge Multiplier Increase Percentage * 125% or 100% with Enchantment perk
- * 200% for poisoned weapons or 75% for unpoisoned weapons - only if a special trait is taken

Charge consumption for everyone except the player = 100%

* $1 - \text{Sum of stats} / (\text{Sum of stats} + 200)$

Sum of stats = Intelligence + Enchanting Skill

Total limit of permanent effect enchantments

This option must be enabled in the mod settings.

Limit = 5000

+ Basic Enchanting Skill * 30

+2000 if you have the Enchantment signature perk

Total **10000** ideally. When putting on a enchanted item for a permanent effect, the amount of enchantments gained is recalculated, if the limit is exceeded, the put on item will not have any magical effect. The value of this slot from the table is used to calculate the amount.

Table for clothes:

Rings, amulet, robe = 1000

Shirt, pants, skirt, belt, boots, gloves = 500

Reservation table:

Helmet, cuirass = 1000

Gloves, boots, leggings, shield = 500

Bracers, shoulder pads = 250

Weapons enchanted with a permanent effect do not count towards the limit and are not blocked if the limit is exceeded.

For permanent enchantments from third-party mods, there is a limit on the enchantment strength, which is 300% of the norm - for example, for rings it is 3000, and for boots 1500. For weapons, the limit is 3000.

If the enchantment's power exceeds the limit, its power will be multiplied by (limit / power) - this multiplier cannot be lower than 20%.

Power = effect magnitude * its base cost * 100 (total for each effect).

Potential charge

The player has a new stat - Potential charge, which is spent when using enchanted items (purple bar). This does not affect enchanted projectiles. If you do not have enough Potential charge, then mana is spent instead. If there is not enough mana, then the enchantment is not applied (scrolls are applied, but with weakened power).

Maximum Potential Charge = 100

+ Basic Will

+ Base Enchantment* (100% or 200% with Enchantment perk)

* 100% - % of enchantment volume used for permanent effect * (85% or 75% with Enchantments perk)

* 50% - only if a special trait is taken

Ideally, the maximum Potential Charge will be 400 for a naked hero, and 100 if he has completely filled his limit with items enchanted for a permanent effect. With a trait, 50.

Potential Charge Consumption = Item Charge Consumption

* 120% or 100% with Enchantment perks separately for items on use and for weapons on hit

For scrolls = scroll charge * (75% or 50% with Enchantment perk) (max 300)

Restoring Potential Charge

Occurs automatically once per second and is (1% or 1.25% with Enchantment perk) of the maximum +0.5 or 1 with Enchantment perk for each point of mana regeneration effect on the player, but only if their current mana is full

CD for enchantments

Enchantments have a cooldown when used, including scrolls. It is 3 seconds.

- $(\text{Speed} + \text{Enchanting Skill}) / 100$ (but not more than 2 seconds)
- 0.5 seconds if the Enchantment perk is taken

Potential Charge Bonus

Participates in the formula for magic power. This bonus affects the use of enchanted items except projectiles. Only applies if the Enchantment perk is taken.

Bonus = $\% \text{ Potential Charge} / 10$

Chance of successful casting

For a player, the casting chance =

Skill of this school of magic (not higher than 150) * (120% or 160% with perk of this school of magic)

+ Will (up to 300) * (10% or 20% with Will perk)

+ Luck (up to 300) * (10% or 20% with Luck perk)

+20% (or 40% with Intelligence perk) - only if player is focused

* $100\% - \% \text{ load} * (25\% \text{ or } 10\% \text{ with Endurance perk})$. Not less than 25%

* Armor modifier equal to 100%

+1% for each piece without armor * skill * (0 or 0.01 with perk)

– 1% for each piece of light armor * $(200 \text{ or } 100 \text{ with perk} - \text{skill}) / 200$

– 1% for each piece of medium armor * $(300 \text{ or } 200 \text{ with perk} - \text{skill}) / 200$

– 1% for each piece of heavy armor * $(400 \text{ or } 300 \text{ with perk} - \text{skill}) / 200$

If the armor modifier is below 100%, it is further increased up to 100% by

+ $\text{Lightness} (\text{minus load modulus}) / 20$

Next Chance = Chance

– Basic spell mana cost * 100% (or 150% – only for extra cast if the special Intellect perk is NOT taken)

– Basic spell mana cost * 50% – Intellect * (25% or 50% with Intellect perk) * (100% or 50% with trait)
(not lower than 0)

– Magnitude of the sound effect

For NPCs, the chance of a successful cast is calculated using the standard engine formula:

$(\text{Skill} * 2 + \text{Will} * 0.2 + \text{Luck} * 0.1 - \text{mana cost} - \text{sound power}) * \text{Stamcoef}$

What does 100% chance mean for spells for 165 mana with full stamina and 100 stats.

NPCs will try to cast a spell if its casting chance is higher than 0.

Then the cast chance is additionally increased by 50% of the spell's mana cost.

Enchanted weapon triggers when attacked

In the settings you can assign a button to enable/disable the expenditure of charges when attacking with an enchanted weapon - this can be useful in some cases.

If your weapon is enchanted with a distant target on hit effect, it will now fire a projectile on any attack, not just when it hits someone.

There is an additional rule for bows and crossbows: if they are enchanted to have an effect on impact with a range of "distant target", then the enchantment will work exactly where the arrow hits. If you shoot a bow or crossbow enchanted in this way, while using enchanted arrows, then at the point of impact 2 effects will work at once: from the weapon and from the arrow.

If a bow or crossbow is enchanted to have a hit effect with a range of "touch", the enchantment will trigger as soon as you release the bowstring.

In order to enchant bows and crossbows for the on-hit effect, you must disable the corresponding ban in MSR.

Summoned creatures

A special formula works for summoned creatures. All the main stats of the summoned creature (8 characteristics, health, mana and stamina) are multiplied by a new coefficient: Summon Power

Summon Power = 100%

+ Witchcraft Skill (not higher than 200) / 5 only for summoning Daedra or undead if the corresponding perk is taken

+10% only for health, mana and stamina if the Witchcraft perk is taken

That is, a scamp summoned by a strong mage will not have 50 strength, but $50 * 120\% = 60$ strength.

Player-summoned creatures also gain a semi-random aggression value.

Aggression = Random from 50 to 70

+ Creature level * 2

– Witchcraft Skill* (20% or 100% with Witchcraft perk)

Aggression cannot be lower than 50. Usually, if the summoned creature's aggression is 80 or higher, it will go out of control and attack the player. Therefore, the stronger and more willful the summoned creature, the higher the chance that it will attack its own summoner if he is not strong enough.

If the summoned creature is summoned by an enemy of the player, this secondary creature gains 100 aggression and immediately attacks the player. If the creature is summoned by a player, it attacks all enemies of the player.

For summoning magic, the Magic Power affects the duration of the effect. For example, summoning a skeleton for 20 seconds with 150% power will summon that skeleton for 30 seconds. For everyone except the player, this effect is 3 times stronger: that is, for the same skeleton for 20 seconds with 150% power, the actual duration of the summon will be 90 seconds.

Signature Perk of Conjunction: With this perk, you can summon multiple identical creatures from the same spell. Summoning a new creature will no longer cancel the previous summon of the same creature.

You can also extend the life of summoned creatures if you start charging magic while looking at the summoned creature.

A button has been added to the settings to order summons to attack the target the player is looking at. If no target is selected, summons attack all of the player's enemies.

Magic Projectile Speed

For player projectiles, projectile speed for player = Base Speed

* 100% + (Will + Change (sum not exceeding 200)) / (8 or 4 with Change perk)

Base Speed = 4000 (6000 for Lightning, 3000 for Poison)

For all others = Base speed

* 75% + Level (not higher than 50) * 2.5

New enemy accuracy system. Now they shoot with a lead - where the moving player will be at the moment the projectile arrives. This can be disabled in the settings.

Additional guidance system for enemy magic projectiles. Homing mode lasts Caster Level/30 seconds after the projectile is launched. This can also be disabled in the settings.

Tangential magic

For contact effects, **the cone angle of damage** is calculated as follows:

For player = (30 or 50 with Dexterity perk) + Dexterity / 10

For the rest = 30 + Dexterity * 30%

The range of destruction is calculated as follows:

For player = (100 or 150 with Dexterity perk) + Dexterity / 2

For the rest = 200 + Dexterity * 200%

Dexterity in formulas is not higher than 500.

Tangential weapon enchantments when attacking have their own formula:

The angle is always 90

$\text{Range} = 130 * (\text{Weapon Range} + 0.3)$

In any case, the range cannot be lower than 130.

Improving magical effects

A number of standard effects have received new mechanics and improvements.

Stat and Resistance Buffs

You can take 2 special Restoration perks: one is responsible for extending stat buffs, and the second is responsible for extending resistances.

Spells gain a 20% duration bonus

Stat Debuffs and Resistance Cuts

Taking the special Restoration perk reduces the duration of stat debuffs and resistors applied to you. The duration is reduced by 25%.

You can take 2 special Destruction perks: one is responsible for extending your stat debuffs, and the second one is responsible for extending your resistor cuts. The duration is increased by 50%.

The stamina reduction effect can no longer reduce the target's stamina below 0 while the target's health is above 20%.

Increase stamina

Now increases not only the current but also the maximum stamina reserve.

Increase max mana

1 effect unit = 0.1 magnitude in interface = +10 max mana

Shields

You can take the special perk Alteration - this will increase the duration of your elemental and normal shield by 20%.

The damage mechanics of elemental shields have been completely changed. Firstly, the sound of physical damage has been removed, and the damage itself applied by the engine is always 0.

Now when an actor physically attacks a target with an elemental shield, the distance between them is checked. If the distance is below 200 (or 300 if the player has the Alteration perk), the attacker takes magical damage from the element corresponding to the shield. The target is considered the caster for this damage. This damage is not affected by absorption or reflection mechanics.

The damage magnitude is random. The minimum magnitude is always 0.

Maximum Magnitude = Shield Magnitude * 75% Factor

+25% with Changes perk

+1% for each piece without armor with the Unarmored Combat perk

The damage duration is always 1 second. The damage power is calculated using standard formulas. Damage from the same sources stacks with each other, unlike regular spells.

Dispel

Now the dispel effect applied to yourself or a friendly target will only remove negative effects. Dispel applied to others will only remove positive effects. Affects spells and enchantments, does not affect alchemical effects.

$\text{Dispel Strength} = \text{Magnitude} * (2.5 \text{ or } 3 \text{ with the appropriate Mysticism perk})$

* 5 or 10 with Conjunction perk for creature summoning effects

* 10 or 20 with the same Conjunction perk for the summon effect of that creature if the dispel is cast on the summoned creature

Each effect that is subject to cleansing will have its duration reduced by

$\text{Dispel Power} / (\text{Effect Magnitude} * \text{Effect Cost}) \text{ seconds}$

Reflection

Classic Reflection now has a huge penalty to the Magic Power Multiplier of the harmful effect in the form

of an additional multiplier, which is equal to

$1 - (\text{Will} + \text{Mysticism}) / (800 \text{ or } 400 \text{ if Mysticisim perk is taken})$

This multiplier cannot be lower than 0.25

Paralysis and Silence

When calculating the magic power from these effects, the target can gain an additional 200 bonus resistance. The chance of this is equal to 20% of the Illusion skill (or 50% if the Illusion perk is taken).

These effects now have a semblance of magnitude. Weak spells with a power of less than 100% will expire earlier than their normal time proportionate to the power of the effect. Strong spells with a power of more than 100% will last longer proportionate to the power of the effect, and if the caster has the Illusion perk, they will receive an additional +10% duration from the norm.

Cure paralysis

This effect now removes X seconds from each paralysis and silence effect applied to you.

$X = 5 * \text{magic power}$

Antidote

This effect now removes X seconds from each poison effect applied to you.

$X = 30 * \text{magic power} / \text{poison effect magnitude}$

Invisibility

Invisibility now has a semblance of magnitude. Invisibility spells will expire later or earlier than their normal time, proportionate to the power of the effect. If the special Illusion perk is taken, then another 20% of the normal duration is added.

If another Illusion perk is taken, strong invisibility spells with a power greater than 100% will add an additional chameleon effect for the duration of their standard duration. The maximum power of the additional chameleon = $(\text{Invisibility Power} - 100\%) / 2$. The minimum power of the additional chameleon is half of the maximum power.

Levitation

The formula for levitation speed has been changed. It is now directly proportional to the magnitude of the effect (see the section on movement speed).

Levitation magic cast on a target is now considered a debuff and is resisted like paralysis. First, the magic power is calculated as usual for positive effects. Then, the magic power receives a number of penalties:

- The target's normal magic resistance
- Will of the goal
- Target Mysticisim Skill / 2

The final magic power is the chance of applying the effect. If the effect is applied, its power is 100%.

Orders

Game-mechanically, both mind control effects (command humanoid and command creature) are non-detrimental effects. But since they are actually debuffs, these effects are subject to resistance. The target's resistance is calculated as follows:

Normal magic resistance (not lower than 0, resist cutters can remove the penalty, but cannot turn it into a bonus)

$-(\text{Target's Will} + \text{Target's Mysticisim Skill}) * (1 \text{ or } 0.5 \text{ if the player has the special Illusion perk})$

$\text{Final resist} = 120 * \text{resist} / (\text{resist} + 100)$

Rabies

Now, when applying the effect, Fury has a chance to force the target to engage in combat with any creature around it for a single time.

$\text{Fury Power} = \text{Magnitude} * \text{Effect Time} * \text{Magic Power}$

+ $\text{Magnitude of already applied frenzy effects} * \text{their remaining duration}$

* 100% or 125% with Illusion perk

$\text{Frenzy threshold} = 1000 + \text{target level} * 100$

$\text{Search radius} = \text{Magnitude} * \text{effect time} * 1 \text{ (or } 2 \text{ if Illusion perk is taken)}$

If the Frenzy Power exceeds the Frenzy Threshold, the target will attack the closest creature in the search

radius. However, if the special Illusion perk is taken, the target will attack all creatures in the same radius at once.

Also, if you take the Illusions perk, then when you apply frenzy, the target gets an additional attack bonus equal to $\text{Magnitude} * \text{magic power}$.

Fear

Now enemies will flee the battlefield only if their flick rate exceeds a certain threshold, which is 100 or 70 if the Attractiveness perk is taken.

+ Enemy level * (10 or 5 if Illusion perk is taken)

This threshold cannot be lower than 100

There are no changes in the mechanics of applying fear effects and repelling undead.

Pacification

The mechanics of applying pacification have been changed. It is now applied only if the total strength of pacification exceeds a certain threshold, otherwise the target completely resists pacification.

Power of Tranquility = $\text{Magnitude} * \text{Magic Power} * 1$ (or 1.5 if Illusion perk is taken)

Activation threshold = $\text{Target's base fight} / 2 + \text{Target's level} * 10$ (or 5 if the Attractiveness perk is taken).
Activation threshold cannot be lower than 50.

If the pacification works, the target is removed from combat.

Inspiration

Game mechanics of targets resisting inspiration with their magic resistance. Now the magic power will be calculated in the same way as for regular positive magic. With one difference: if the player has the Attractiveness perk, the magic power gets an additional component equal to $(\text{Attractiveness} / 5)\%$.

When Inspire is applied, the target gains a number of bonus effects for the duration of the effect.

Coefficient = $\text{Magnitude} * \text{Magic Power}$

1) Buff to a random characteristic (strength, endurance, agility, speed, intelligence, will). Value = $\text{Coef} * (0.5 \text{ or } 1 \text{ if the Illusion perk is taken})$.

2) Regen of stamina. Value = $\text{Coefficient} / (4 \text{ or } 2 \text{ if the Illusion perk is taken})$.

3) Health regen, applied only if the Illusion perk is taken. Value = $\text{Coef} / 50$

4) Mana regen, applied only if the Illusion perk is taken. Value = $\text{Coef} / 20$

Detection

Press the special magic vision button while you are under the detection effect, and for the next 10 seconds all spell targets within the available radius will be highlighted (and will be visible even through walls).

Radius = $\text{effect magnitude} * 20$ (or 30 if Mysticism perk is taken)

For life detection, all creatures are highlighted, each type of creature in its own way, for enchanted detection - enchanted items and soul gems, and for key detection - keys, doors and all normal containers (yes, this is not a useless effect anymore).

Mark and Return

$1 + \text{base stats: Will}/200 + \text{Intelligence}/100 + \text{Alteration Skill}/200 + \text{Mysticism Skill}/50$

* 2 if the Mysticism perk is taken

That's how many slots you now have for a mark. But no more than 10 - that's how many there will be when fully upgraded. In the mod settings, assign a quick button to select the current mark for return.

Summon weapons and armor

For weapon and armor summoning magic, the Magic Power affects the duration of the effect. For example, summoning a sword for 60 seconds with a power of 300% will summon that sword for 180 seconds.

Summoned weapon base damage = 60%

+ Witchcraft Skill (up to 100) * (0.1 or 0.2 with Witchcraft perk)

* 125% if the special Witchcraft perk is taken and the weapon weight is selected.

Summoned Projectiles Base Damage = 60%

+ Witchcraft Skill (up to 100) * (0.2 or 0.4 with Witchcraft perk)

Weapon weight does not affect summoned projectiles.

For summoned weapons, the weight is 60% (or 50% with the Conjunction perk) of the weight of a similar Daedric weapon. If the weapon's weight is selected, the weight is additionally multiplied by 150%, which means

it will be 90% or 75% of the Daedric's weight.

For summoned arrows and bolts, their weight is considered equal to 0.3. For summoned stars – 0.

Water breathing

Weak spells with less than 100% power will expire earlier than their normal duration proportional to the power of the effect. Strong spells with more than 100% power will last longer proportional to the power of the effect.

Fixed a cheat with replenishing the air supply to 100% when casting water breathing of any duration. Now the air supply is slowly restored every second for +0.2 seconds of breathing with 1 effect applied and another +0.5 seconds of breathing for each additional effect.

Walking on water

Weak spells with less than 100% power will expire earlier than their normal duration proportional to the power of the effect. Strong spells with more than 100% power will last longer proportional to the power of the effect.

Returns and Interventions

In the menu for selecting a mark for Return, you can now enable the option to teleport companions. If enabled, you will attempt to teleport all your companions at the time of casting Return, Interventions, and Teleport to the City. Mana consumption for each companion = 60 or 30 if it is a summoned creature. If you take the special Mysticism perk, the mana consumption is reduced by 3 times: 20/10.

Lock picking

If you take the special Mysticism perk, your hacking magic will also try to disarm traps. If the strength of the hacking effect exceeds 4x the trap's mana cost, it will be disarmed.

Absorb stats and resources

You can take the special Mysticism perk to extend your stat absorbing spells. Duration is increased by 25%.

It is now impossible to absorb more than the current amount of a target's stat or resource.

It is forbidden to create spells with a radius (this was one of the legal cheats if casting into a crowd).

For mana absorption, the resulting magic power multiplier cannot be higher than 200%.

Enchantment

For non-permanent enchantments, the maximum charges are now calculated as follows:

Soul Power * Coef.

Coefficient = 20%

+ Enchanter's base Enchant skill* (20% or 30% with Enchant perk)

Also for non-permanent enchantments the maximum power expressed in base cost of charges per cast is limited by Soul Power (no higher than 500) / (12.5 or 10 with Enchantment perk, this perk is only available to the player).

The power of permanent enchantments is limited by Soul Power (up to 500) / (5 or 4 with the Enchantment perk, this perk is only available to the player).

When enchanting yourself, you only have access to those effects whose basic skill has reached 100 – Enchantment Skill

This value cannot be higher than 50.

Price of enchanted item = price of base item * (1 + Soul / 500)

Creating Spells

By taking the signature perk of Intelligence, you will be able to create spells yourself and for free (the button in the perk menu is available if the player is out of combat).

In this case, only those effects are available to you whose base skill has reached 80.

For independent creation of spells, the player spends mana in the amount of five times the mana cost of the spell. If the current mana is not enough, then you will not be able to create a spell.

Anti-exploits

Barriers to AoE magic

Now if the actor is shielded by a barrier from the explosion of AoE magic, then this magic will not affect him. Yes, now you can hide from explosions behind walls. Your spells will also not hit enemies through walls.

Anti-exploit of enchantments on permanent effect

In the original, you could enchant a piece of gear with +0-39 strength instead of +20 strength and roll it , putting it on and taking it off until you got +39. This was how you could cheat by doubling the capacity of items. This won't work anymore. If you put on an item enchanted with anything other than mana, health, or stamina restoration, and the minimum and maximum magnitudes don't match, the power of that enchantment will be reduced to 50%.

Anti-exploit with duration of homemade spells

Gone are the days when you could freely cast a spell with 500% resistor cut for 1 second before an effect with 500 damage, thereby receiving +2500 free damage for a ridiculous increase in cost. And the increase in Intelligence for 1 second is now also unabusable . A number of effects received a minimum duration of 20 seconds at the stage of creating homemade spells and enchantments. This minimum can be reduced by 2 times if you take a special perk of Intelligence.

Minimums with the perk taken: water breathing - 5, jumping - 5, summon creatures - 20. Everything else at 10: slow fall, all reductions, all vulnerabilities, chameleon, charm, all behavioral illusions and orders, all increases, evasion, stat and skill absorption, soul trap, all detections, lifeleech , reload, repair.

The ability to make custom enchantments for the mana restoration effect is left only for the permanent effect.

Improved interface

Improved Magic Menu

Enabled in settings. Especially for those who have over 300 spells and do not want to scroll the mouse wheel for 5 minutes each time.

There you can also enable an improved menu of enchanted items.

Menu for creating spells and enchantments

In the mod settings, activate this flag - and your menus for creating new spells and enchantments will change in a similar way - a tile will appear instead of an inconvenient list of effects.

Selected Spells

You can add/remove the current spell to your favorites by pressing the universal extra cast slot button together with Shift (press this button together with Alt to clear the list). Favorite spells will be placed at the very top of the spell list. This option is only available in the advanced magic menu.

Alchemy menu

Now the menu for selecting alchemy ingredients has a convenient effect filter.

New Scroll Icons

Automatically adds beautiful informative icons to magic scrolls. Can be disabled in the mod settings.

New potion icons

Automatically adds informative icons to all potions. Can be disabled in the mod settings.

NEW MAGIC EFFECTS

The initial spells are sold by Marain Dren. Once you learn them, you can create your own spells and enchantments with these effects.

Dash (1)

While you have this effect, you can perform a classic dash. Quickly teleports you a distance equal to the effect's strength in the direction you are moving, consuming mana and stamina.

The effect is activated by the dash button that you assign in the settings.

Range = Magnitude

- * 60 or 80 with Speed signature perk

- * 100% + 1% for each piece without armor - if the Unarmored Combat perk is taken

- * 50% if the player is in hitstun

- + Dodge range - if you have the special Speed perk and you have enough stamina for dodge

The effective magnitude can be manually limited by you in the mod settings.

The direction of the jerk corresponds to the movement and direction of your gaze, and for backward jerks the gaze vector is inverted, that is, you can jerk upward, retreating and looking at the floor.

You pay mana both for casting the effect and for each dash separately.

Mana cost dash = Magnitude

– Real Magnitude / 10 (only with Signature Perk Changes)

- * Spell Cost Multiplier Alterations

- * 125% or 100% if you do a jump dash and have the Acrobatics perk

- * Repeat multiplier if you dash faster than 3 seconds after your previous dash.

Repeat Multiplier = 1 + time remaining up to 3 seconds / (5 or 10 with Athletics perk)

If the distance to the point you are heading to is less than the maximum dash range, the dash magnitude (and therefore the mana cost) will be reduced to the required value.

Dash spends stamina. Stamina Cost = Mana Cost * Coef.

Coef = 200% or 100% with Endurance perk

- 4% for each piece without armor with the Unarmored Combat perk

Stamina consumption increases by Dodge Cost (if the special Speed perk is taken), but if there is not enough stamina for Dodge, then the range increase due to Dodge will not occur.

If you don't have enough mana, you can't dash, but you'll automatically attempt a normal dodge. If you're knocked down or KO'd, you can't dash, but if you have the Agility perk, you can. If you're paralyzed, you can't dash.

If you dash while holding the middle mouse button, your dash distance will automatically adjust to the closest enemy in the direction of the dash. If you have the special option enabled, you will attempt a kick at the end of the dash.

Tips: It's really worth wearing something with a permanent dash effect or taking this ability from the legendary menu.

Dash strike, dash kick and slam

You can use the dash to perform dash strikes: hold down the special mouse button while performing an attack or enable the automatic dash strike option in the settings. This will cause you to rush straight to the target and strike.

During a dash strike, your attack speed is reduced by 5 times. However, if you have the Speed perk, your attack speed is only reduced by 2 times.

Hold MMB during a dash to perform a kick immediately after completing the dash, which will travel the full distance to the enemy.

Your attacks and kicks gain a damage bonus of **Dash Factor** equal to

Dash Range * (1% or 2% with Strength Signature Perk)

- * 2 with the Long Blades signature perk if it's a two-handed sword attack

If you do a downward dash strike with a hammer while jumping from a distance greater than 500, you will perform a slam attack, dealing physical damage to everyone around you within 200 range from the point of impact. The slam attack can only be a slash and is fully charged. The maximum slam angle is limited to:

90 degrees * Acrobatics skill / (200 or 150 with Acrobatics perk)

Base Damage = Physical Damage * Distance/3000. This damage is mitigated by armor.
Enemies hit are knocked back in a similar manner to the spin attack.

Teleport (10)

Launch a projectile and teleport to where it collides with something. Mana for direct teleportation is spent separately at the moment of teleportation and is directly proportional to the distance you want to teleport.

Manacost = $(20 + \text{Range} / 50)$

* 150% or 100% with Intelligence perk

* Spell Cost Multiplier for Mysticism

Max Range = $(100 + \text{Intelligence} + \text{Alteration} + \text{Mysticism}) * 20$

If you try to teleport beyond the maximum range, a new point with the maximum range will be created on your path vector, and you will teleport to it.

Tips: It's very convenient to combine Teleport with the projectile control effect - especially with the instant hit and mine modes. You can detonate the projectile right in flight to teleport without waiting for the impact. It also makes sense to enchant the bow with teleport on impact to teleport to the place where the arrow hits.

Reload (10)

Restores charges to your equipped enchanted item every second. Weapon charges are restored first, then everything else.

Charge Recovery = Magnitude * Coef.

Coefficient = $1 + \text{Enchanting Skill} / 400$ (if Enchanting perk is taken)

If there are no items to recharge, each tick of recharge will restore your potential charge equal to (25% or 50% with the Enchant perk) the magnitude.

Also, if you have the special Enchantment perk and you have no items to recharge, then each tick of recharge will restore your mana in the amount of 25% of the magnitude.

Weapon Repair (5)

Restores the durability of the equipped weapon once per second. If the equipped weapon has 100% durability, then repairs the weapon from the inventory.

Strength Recovery = Magnitude * Coef.

Coefficient = $1 + \text{Blacksmith Skill} / 400$ (if the Gunsmith perk is taken)

Armor Repair (3)

Restores the durability of the equipped armor once per second. If the equipped armor has 100% durability, then repairs the armor from the inventory.

Strength Recovery = Magnitude * Coef.

Coefficient = $1 + \text{Blacksmith Skill} / 400$ (if the Gunsmith perk is taken)

Teleport to city (150)

Expensive but versatile. Supports major towns and villages on the island.

Time Slowdown (0.5)

Slows down your perception of time. The total strength of the effect gives time dilation according to a non-linear [formula](#): $\text{magnitude} * 100 / (50 + \text{magnitude})$

Maximum slowdown: 75% or 95% if the Illusion perk is taken

If you take the special Perception perk, and if you receive physical damage and have less than 20% health, then for the next 3 seconds you will be subject to a time dilation effect with a magnitude equal to $(25 + \text{Security Skill} / 4)$.

If you take the special Perception perks, then when you parry and dodge in combat you will get 50 time slow for 1 second.

Magic Lantern (0.1)

If it hits a target, it launches a magical clot of light that is fixed at the point of impact.

If on yourself, the created clot of light follows the player.

Light Power = Magnitude * Caster Power (Changes + Changes)

The color is random. The color saturation can be adjusted in the mod settings.

Kinetic Shield (1)

While this effect is active, you take reduced physical damage, but this costs you mana.

Max Damage Absorbed Per Hit = Magnitude

* 100% + number of pieces without armor if the Unarmored Combat perk is taken

The maximum damage absorbed cannot be higher than 33% of your current mana.

For each act of absorbing damage, you spend mana equal to the absorbed damage * 100%

- 25% with Intelligence perk

- 1% for each piece without armor with the Unarmored Combat perk

+2% for each piece of light armor

+4% for each piece of medium armor

+6% for each piece of heavy armor

Tip: It's handy to enchant a kinetic shield for a permanent effect.

Life lich (0.5)

While this effect is active, each physical hit you make on an enemy restores your health based on the amount of damage dealt, at the cost of mana.

Health Regen per Hit = Damage * Magnitude / 100

Maximum healing cannot be higher than 25% of your current mana.

For each such hit you spend additional mana equal to the restored health.

* 75% or 50% if the Recovery perk is taken (player only)

* 20% for everyone except the player

If you take this perk, then along with the restoration of health, your stamina will also be restored in the amount of double the restored health.

Tip: It's convenient to enchant a life lich for a permanent effect.

Projectile Control (1)

While the effect is on the player, he will control the direction of his projectiles - both magical and physical. Assign the control mode change button in the settings. There are 6 modes: on target, ricochet, homing, teleport, rotation, mines. They become available when taking the corresponding perks of Mysticism and Change. Press and hold the control button to call up the quick control mode selection wheels. If you do not select anything, the control will be canceled.

Physical projectiles will only be controlled in target or ricochet mode. By pressing the control button while holding down the mouse button (selected in the settings), you will release all your projectiles into free flight or explode them (another mouse button).

For each projectile you control, you spend mana.

Manacost for physical projectiles = 20 + projectile weight * 5

Melee weapon manacost = 20 + weapon weight * 2

Manacost for each beam element = beam base cost/10 (not less than 1)

Manacost of everything else = base manacost of spell or enchantment or projectile cost of charged weapon or 50% of reflected projectile manacost (all not less than 10)

Next, the mana cost is multiplied by

* 20% or 15% with Intelligence perk

* Modifier of individual control modes

Target mode (mana cost = 100%). The ball flies to the place you are looking at (but not further than 4800 units of distance). This mode is not available for the shotgun. If you hold down the special mouse button, the projectiles controlled in this mode will begin to return to you. If this is a multi-shot and fan throw, then control begins to work only 0.3 seconds after the start of the flight.

Ricochet mode (mana cost = 150%, for shotgun 150%). Projectiles bounce off surfaces.

Rotation mode (manacost = 100%). When you launch the ball, it will start rotating around you with a radius proportional to the radius of the first effect in the ball. Up to 10 balls can rotate at the same time. Conveniently combined with the beam.

Teleport mode (mana cost = 200%, for shotgun 200%). The balls instantly reach the target and explode at the point where you are looking.

Homing mode (mana cost = 200%). The ball pursues the target you were looking at when it was launched. Otherwise, the ball chooses the closest living target and flies to it. By default, your balls hit everyone around indiscriminately. You can switch the search mode to search for targets only among your current enemies in the settings. Flight is slower than in other modes. This mode is not available for the shotgun. If the target is not found, the ball will launch in the on-target mode.

Simple mining mode (mana cost = 150%, for shotgun 200%). The ball remains motionless in the air until it collides with the target. Very convenient to combine with the function of disbanding or exploding shells.

Smart Mining Mode (mana cost = 200%, for shotgun 250%). Available only if the ability to teleport mode is open. The ball remains motionless in the place where you are looking until it collides with the target.

Control of an individual projectile can only last for a limited time:

$(\% \text{ Stamina} * 4 + (\text{Will} + \text{Mysticism} + \text{Alteration})/50) * (1 \text{ or } 2 \text{ with Alteration perk})$

Ideally, the control time will be 20 seconds. And for rotation and mining modes, the time is one and a half times longer.

Tip: It is highly recommended to enchant the projectile control for a permanent effect. Also in the settings you can prohibit the use of control for magic beams, thereby saving a lot of mana. For magic projectiles, control can work even without the effect of projectile control on you. To do this, you need to take the Mysticism perk and activate the spell charging.

Telekinetic Throw

This is not a separate effect, but a new mechanic available to you as long as you have the projectile control effect applied to you. In the mod settings, assign a throw button. Hover over an item and press it (or throw an item from your inventory while holding the button down) - and then this item will be prepared for throwing. Press the button again and the throw will be performed. Press the button during the flight of the item - and it will begin to return to you. Return speed =

$200 + \text{Will} + \text{Alteration Skill}$

* 100% or 200% with Changes perk

Press the button while returning an item - and it will urgently teleport to you (if you have the special perk of mysticism). Press the button while preparing an item together with the middle mouse button - and you will take it to your inventory.

Manacost per throw = $5 + \text{item weight}$

* 75% or 50% with Intelligence perk

* Cost multiplier for Alteration spells (or Mysticism for emergency teleport)

The mana cost for emergency teleport gets an additional multiplier of $1 + (\text{distance to item} / 5000)$. This multiplier cannot be higher than 2.

Base Damage = $\text{Weapon Max Damage} * \text{Weapon Condition \%}$

In this case, the weapon's % condition cannot be less than 10% or 30% if the special Blacksmith perk is taken. The base damage cannot be lower than 50% of the item's weight.

Item Hit Damage = Base Damage

* caster power (Changes).

* spell charge multiplier at hit

* Critical Multiplier: Critical Chance and Critical Damage are calculated using the same rules as for throwing weapons.

Damage is reduced by the target's armor according to the standard formula.

The target takes stamina damage equal to 100% of the damage dealt.

The target has a chance to gain hitstun according to the same rules as for physical damage.

Shielders can block the projectile using the same rules as physical projectiles.

Telekinetic Throw can be combined with the effect of a charged weapon.

Kinetic Arrow (3)

Magic projectile deals physical damage to a single target. Duration and radius are not supported.

Power Factor = $\text{Caster Power (Changes)} * \text{Magic Power Multiplier}$

Damage = Magnitude * Power Factor

* 100% + Critical Damage

Critical chance and critical damage are calculated using the same rules as for thrown weapons.

Damage is reduced by the target's armor according to a special formula:

Final damage = damage * coefficient / (coefficient + armor)

Coefficient = damage, but not less than 50 and not more than 100.

The target takes stamina damage equal to 100% of the damage dealt.

The target has a chance to gain hitstun according to the same rules as for physical damage.

Shielders can block the projectile using the same rules as physical projectiles.

Supports effect options for shotgun (3-5 arrows) and beam (stream of arrows).

Kinetic Strike (4)

An explosion of force occurs at the point where the magic projectile hits or at the top of the cone of a touch spell, throwing enemies aside and dealing physical damage. No duration is maintained.

Power Factor = Caster Power (Changes) * Magic Power Multiplier

Damage = Magnitude * Power Factor

Explosion Radius = Effect Radius + Radius Bonus

* Damage

* 75% or 100% with the Destruction signature perk

$\wedge 0.5$

* 20

Damage gradually decreases to 0 depending on the distance of the target from the epicenter of the explosion:

Damage = Damage * **Distance Coefficient**, which is

Explosion radius / 2 – Distance to epicenter

* 2 / Explosion radius

+ 10%

The distance coefficient cannot be higher than 100%.

The distance coefficient is reduced by 2 times if both the caster and the target are enemies of the player.

The final damage is reduced by the enemy's armor according to a special formula:

Final damage = damage * coefficient / (coefficient + armor)

Coefficient = damage, but not less than 50 and not more than 100.

The target takes stamina damage equal to 100% of the damage dealt, but the target's stamina cannot drop below 0.

The blast wave knocks back everyone within the blast radius.

Blast wave

Kinetic Strike and 3 elemental effects cause a blast wave at the detonation point or the apex of the touch spell's cone.

The explosion radius for the kinetic strike is calculated above.

The radius of elemental explosions is calculated in total for each elemental effect in a spell with a radius of 10 or higher using the formula:

Effect Radius + Radius Bonus – 10

* Magnitude * Power Factor

* 100% for fire or 75% for frost and lightning

* 50% or 100% with the Destruction signature perk

$\wedge 0.5$

* 20

Power Factor = Caster Power (Changes) * Magic Power Multiplier

Target acceleration = Explosion radius – Distance to epicenter

* 2 / Target mass

For the acceleration effect to work, it must be above 200. Acceleration cannot exceed 4000. Mass depends on the size and armor of the target (same formula as the kick).

Knockdown Chance = Haste/10 – Target's Agility – 50

Summon Projectiles (1)

While the effect lasts, you can use the weapon call button to refill the projectiles, and refills occur automatically after each shot. Each refill converts your mana into projectiles of the current type. The type of projectile is selected automatically: arrows if a bow is equipped, bolts if a crossbow, throwing stars in all other cases.

Manacost of 1 projectile = 6 or 4 if the Witchcraft perk is taken

* Mana Cost Multiplier for Sorcery

Due to unstable Daedric magic, projectiles gain a random elemental enchantment, but its strength and radius depend on the player's stats.

Minimum Damage = Destruction Skill / (20 or 10 with Destruction perk)

Maximum damage is 3 times greater than minimum.

Radius = Radius Bonus * (0.3 or 0.5 with Destruction perk)

Tips: It is highly recommended to enchant the projectile summoning for a permanent effect. If you have changed the weapon type and want to change the projectile type - press the button. There is also a Witchcraft perk that allows you to summon projectiles without an active magical effect.

Universal Summon Weapon (10)

Press the special button to select the type of weapon that will be summoned when this effect is cast. In this menu, you can choose whether you will summon normal versions of the weapon or heavy ones (available with the Conjunction perk).

This effect also allows you to summon projectiles when you press a special button (like the projectile summon effect).

Tips: It is very convenient to have the enchantment with the universal weapon summon for a permanent effect.

Summon Leggings (5), Summon Shoulders (5)

Analogous to vanilla Daedric Armor summoning.

Load weapon (1)

While the effect lasts, your attacks with any weapon deal instantaneous set damage to the target. The minimum and maximum damage magnitude is equal to the effect magnitude.

The charging effect itself is related to Mysticism and consists only in providing a stable channel from the reservoir of your magical energy to your weapon - for this you pay the price of the spell. But the main expenditure of mana occurs at the moment of striking, the price of mana for these discharges fully corresponds to the prices of those destructive effects with which you charged the weapon.

For the player, the price is additionally multiplied by

* 80% with Intelligence perk

* Spell Cost Multiplier for Destruction

No mana - no discharge itself, even if the charging effect itself still affects you.

There are 2 modes (switched with a special button): dealing touch damage when hitting a target or creating a flying ball with each attack. Balls cost one and a half times more - as well as long-range spells that are 1.5 times more expensive than their touch counterparts.

The explosion radius of the ball is equal to the Radius Bonus.

There is also a smart mod for this effect in the settings - if it is enabled, then long-range weapons will always cause an explosive type of effect only when the projectile hits, but not when fired. The cost coefficient is the same as for balls: 150%.

Press the weapon charge button while you are telekinetically controlling the item and a combined attack will be triggered - the weapon will explode and deal damage to everyone around it like a ball explosion (with the same radius, but only 100% mana cost).

Tip: Create a permanent enchantment with this effect. You can turn this effect on/off by clicking the button. You can cast this effect on your allies.

Empower (1)

While the effect lasts, your magic projectiles and thrown melee weapons produce an additional explosion at the point of impact. The damage is instant. The minimum and maximum damage magnitude is equal to the magnitude of the effect.

The effect itself is related to Mysticism and consists only in providing a stable channel from the reservoir of your magical energy for the automated creation of explosions - for this you pay the price of the spell. But the main expenditure of mana occurs at the moment of each explosion, the cost of mana for which corresponds to the prices of those destructive effects with which you have charged yourself.

For the player, the price is additionally multiplied by

- * 150% (or 120% with Intelligence perk).

- * Spell Cost Multiplier for Destruction

No mana - no explosion itself, even if the effect itself is still affecting you.

The explosion radius is equal to the Radius Bonus.

Explosions are not triggered by magical waves.

For shotgun shells, only 20% of the effect magnitude works, for beam shells - only 10%. For beam shells, the explosion radius is always 1.

Tip: Create a permanent enchantment with this effect. You can turn this effect on/off by clicking the button. You can cast this effect on your allies.

Damage Aura (x2)

While the effect lasts, your enemies around you take damage equal to the effect's strength every second. The aura deals damage every 3 seconds. If you take the perk, this time is reduced to a minimum of 2.5 seconds per 100 Willpower.

Damage radius = $(100 + \text{Will} + \text{Change})$

- * $(100\% \text{ or } 150\% \text{ with Alteration perk}) + \% \text{ magicka charge} / 2$ (only with Will perk)

That is, ideally, the radius of auras is 450 or 600 when the magic is fully charged.

The duration of damage from 1 tick is always 3 seconds. If an enemy is hit by the aura, then for the next 3 seconds he receives damage from it, no matter how far he runs.

If the aura has not hit anyone in the current tick, its duration is extended by 1 (or 2 with the Intelligence perk) seconds.

By default, your damage auras hit everyone around you indiscriminately. You can switch the search mode to search for targets only among your current enemies in the mod settings. In the settings, you can assign a button to temporarily disable the operation of your auras.

Zone (x1)

Launch the ball, and at the point of its collision a zone will be formed that will deal corresponding damage to anyone who enters it (except the player).

The zone ticks every 2 seconds. If you take the Will perk, this time is reduced to a minimum of 1.5 seconds per 100 Will skill.

The damage duration is always 2 seconds. The minimum and maximum damage magnitude is equal to the effect magnitude.

Zone size = effect radius

- * $7.5\% + \text{Alteration Skill} / 40$ (with Alteration perk)

The size of the zone cannot exceed 10 (achieved at 100 radius of effect).

Damage radius = zone size * 300

That is 30 per 1 radius of effect, while for normal explosions it is 22.1 per 1 radius

Maximum number of different zones =

$(50 + \text{Intelligence} / 2 + \text{Alteration}) / (40 \text{ or } 20 \text{ with Intelligence perk})$

If you cast a new spell when all slots are full, it will overwrite the slot that is closest to expiring.

Rune (x1)

Launch the ball, and at the point of its impact a rune trap will form. If someone other than the hero steps on it, the rune will explode and cause damage to everyone around except the player.

Rune size = effect radius * 0.16 * radius coefficient

$\text{Radius Coefficient} = \text{Radius Bonus} / 40$

The rune size cannot exceed 10 (achieved at 50 effect radius).

$\text{Activation radius} = \text{rune size} * 80$

That is 16 for 1 radius of effect (1 radius of normal explosion = 22.1)

$\text{Explosion Radius} = \text{Effect Radius} * \text{Radius Coefficient}$

The duration and magnitude of the explosion damage is set on the effect itself. The duration of the rune's existence is fixed and equals

$(100 + \text{Mysticism} + \text{Alteration}) * (0.2 \text{ or } 0.4 \text{ with Willpower perk})$

Maximum number of different runes =

$(50 + \text{Intelligence}/2 + \text{Alteration}) / (40 \text{ or } 20 \text{ with Intelligence perk})$

If you cast a new spell when all slots are full, it will overwrite the slot closest to expiration, causing the old rune to explode.

If you combine several different runes in one spell, then 1 rune will be installed, but it will explode with a combined spell.

You can detonate all runes by pressing a special button.

Totem (0.5)

Launch a ball, and at the point of impact a totem is formed that shoots at the nearest creature at regular intervals, spending your mana.

The totem fires once every 2 seconds. If you take the perk, this time is reduced to a minimum of 1.5 seconds per 100 Will skill.

The damage from the totem balls is instant. The magnitude and radius of the damage from the balls is set on the effect itself. The duration of the totem's existence is equal to the duration of the effect.

The totem effect itself is related to Mysticism and consists only in providing a stable channel from your magic reservoir for automated projectile creation - for this you pay the price of the spell. But the main mana consumption occurs at the moment of projectile creation, the mana price for these projectiles corresponds to the prices of those destructive effects with which you charged the totem, but there is no multiplier for the range. The price is additionally multiplied by

* 80% with Intelligence perk

* Spell Cost Multiplier for Destruction

* $1 + \text{Radius}^2 / (10 * \text{Radius} + 200)$

No mana - no shot itself, even if the totem itself is still active.

The shooting distance has a limitation:

$(100 + \text{Intelligence} + \text{Mysticism} + \text{Alteration}) * (10 \text{ or } 20 \text{ if Mysticism perk is taken})$

Maximum number of different totems =

$(50 + \text{Intelligence}/2 + \text{Alteration}) / (40 \text{ or } 20 \text{ with Intelligence perk})$

If you cast a new spell when all slots are full, it will overwrite the slot closest to expiration. When replacing or naturally expiring the life of the totem, it explodes if its initial life was 10 seconds or higher.

If you combine several different totems in one spell, then 1 totem will be installed, but it will shoot a combined ball. For this, all durations of the second and subsequent totems in the combined spell must be equal to the duration of the first totem.

By default, your totems will attack everyone around them indiscriminately. You can switch the search mode to search for targets only among your current enemies in the mod settings. You can also turn on/off totem shooting by pressing a special button, or detonate all totems at once.

Shotgun (x5)

Shoots several balls at once. The range is always touch, but it doesn't matter. You control the direction and spread of the balls with your gaze.

Number of balls = 3

+ 1 if the Changes perk is taken

+ 1 if (Change + Intelligence) is above 150

For custom spells, the shotgun effect must be the first of the 8 available.

The effect supports the ability to enchant a weapon that will shoot a shotgun with any attack! Shotgun balls damage stacks. Shotgun balls do not support many targeting and homing modes to control projectiles. So you get huge and cheap damage at the cost of convenience.

$\text{Ball Spread} = 100\% - \text{Odds}/(\text{Odds}+100)$

Coef = (Dexterity + Accuracy) / * (100% or 50% with Accuracy perk)

Ray (x10)

Shoots a burst of balls that merge into a nearly continuous beam. The range is always touch, but that's not important. The initial mana cost occurs when the spell is cast, then the spell must be maintained, spending mana for each ball fired. The radius of the ball's explosion is 2 times smaller than the radius of the base effect.

Number of balls per 1 second of beam action = 15

+ 5 if perk Changes is taken

+ Alteration / 20 + Intelligence / 20 (this bonus cannot be higher than 10)

Ideally the beam consists of 30 balls per second, but this number cannot exceed your fps.

These effects can work in two modes: beam or spray. If the spray is selected, the range of the balls is greatly limited. Hold down the special mouse button to change the mode. Spray range = $(50 + \text{Will}/2 + \text{Alteration Skill}) (\text{max } 300) / (2000 \text{ or } 1000 \text{ with the Alteration perk})$.

Mana cost per 1 beam ball: manacost

* 12.5% or 10% with Intelligence perk

* 80% if it is a spray

* Spell cost multiplier for beam spell

For custom spells, the beam effect must be the first of the 8 available.

The effect supports the ability to enchant a weapon that will shoot a beam with any attack! The damage from the beam balls stacks. So you get huge damage at the cost of convenience.

Charging spells affects each individual beam element. At the same time, casting each beam element subtracts 1% from the current charge (or 0.5% if the special Will perk is taken).

Wave (x2)

Launches a ball that flies in a straight line and explodes every 0.3 seconds, damaging everyone around it. The damage magnitude decreases over time, and the explosion radii increase. Also, at the moment of impact, another additional explosion of damage occurs. A wave with a sufficient radius deals damage to all targets in its path approximately 3-4 times.

After X explosions the wave disappears. $X = 10$

+ 5 if perk Changes is taken

+ $(\text{Will} + \text{Alteration Skill})/40$ (this number cannot be higher than 5)

Ideally, the wave flies for 6 seconds and explodes 20 times.

The magnitude of the explosion is equal to the magnitude of the effect and decreases uniformly with each explosion down to 0.

Explosion radius equals effect radius + number of explosions / (2 or 1 with Alteration perk)

Waves are not affected by projectile control.

Nova (x1)

Creates a magic ball that instantly explodes at the location where the caster stands.

It's basically a more convenient version of the touch combat spells.

Orb Magnitude = Effect Magnitude * Magic Power Multiplier

Ball radius = effect radius + radius bonus/2

It becomes doubly convenient if it is an elemental discharge, and you have the signature perk Destruction.

New reflection (1)

There is a universal magic reflection effect and 5 additional effects for fire, frost, lightning, poison and chaos (health damage). Universal magic reflection can work in one of two modes: reflection and mana shield. Assign a button to switch the mode in the mod settings. Additional effects work only in mana shield mode.

While this effect is active, you will attempt to reflect every enemy spell that hits you, spending your mana in the process. If the enemy magic is not reflected in Reflect mode, your Mana Shield will attempt to neutralize its power, spending your mana in the process.

Spell Power is the sum of the powers of each effect of magic directed against you. Power of each effect = $(\text{min. magnitude} + \text{max. magnitude}) / 20$

* Base cost of the effect

- * Duration of effect (not less than 1)
- * Enemy spell magic power multiplier

Reflection mode

Reflection Power = Magnitude * 100% (or 120% if Mysticism perk is taken)

If the enemy spell is in the form of a ball, then in order to attempt to reflect it, this ball must hit you directly.

If the power of the reflection is greater than the power of the spell, you will gain immunity from this enemy magic and, having spent mana, launch a similar spell in the direction of your gaze, but with a limited radius. If the power of the harmful magic is greater than the power of the reflection, you will receive the full amount of damage and will not reflect anything, but you will not spend mana either. If there is not enough mana, you will not reflect anything either.

Mana cost = Spell Power * 250% (or 200% with Intelligence perk) (or 100% for everyone except the player)

The radius of a reflected spell is the lesser of the original spell's radius and the Range Bonus.

Mana Shield Mode

Mana Shield Power = Magnitude

+ Additional effect magnitude * 2 (only for the corresponding damage type)

* 100% (or 120% if the Mysticism perk is taken)

Effect strength = (min. magnitude + max. magnitude) / 2

* Base cost of the effect

* Duration of effect (not less than 1)

* 100% – final resistance to the effect

The effect power is calculated separately for each enemy spell effect. If the spell consists of 3 effects, then the mana shield will be applied at full power against each of them.

In this mode, you are guaranteed to weaken all harmful magic by spending mana, but you do not launch the ball in response. The weakening of magic is applied after it has been weakened by your resistances.

The effective power of the mana shield cannot exceed the power of the effect.

Weakening Ratio = Effective Mana Shield Power / Effect Power

Manacost = Effective Mana Shield Power * 0.25 (or 0.2 with Intelligence perk)

As a result, the final resistance will be =

$100\% - (100\% - \text{resist}) * (1 - \text{Attenuation coefficient})$

ALCHEMY

Brewing potions

When brewing potions, only the player's basic parameters are now taken into account. The formulas have been completely replaced (you can disable the alchemy module in the settings, and then the vanilla mechanics of the engine will be applied). For each magical effect, the magnitude and duration of the ideal potion that you can brew are defined. You can see them in the magical effects section. The quality of the devices cannot exceed 2.

Potion Strength = Alchemy Skill/2

+ Intelligence/10

+ Mortar quality * 20

+ Luck/10 if the Luck perk is taken

* Marriage rate

The potion's strength cannot exceed 100. The remainder of the excess is added to the chance of successful brewing.

Magnitude Factor = 40 (or 60 with Alchemy perk)

+ Retort quality * 5 (or 10 with Alchemy perk)

Calcinator Quality * 5 (or 10 with Alchemy perk)

Duration coefficient = 40 (or 60 with Alchemy perk)

+ Distillation Still Quality * 5 (or 10 with Alchemy perk)

Calcinator Quality * 5 (or 10 with Alchemy perk)

Chance of successful brewing = Alchemy Skill * 50% (or 100% with Alchemy perk)

+ Intelligence/5

+ Dexterity/5

+ Mortar quality * 20

+ Luck * 10% (or 30% with Luck perk)

+ Remaining from exceeding the Potion's Power

– (Quality of retort + calcinator + distillation cube) * 20 (or 10 with Alchemy perk)

When you try to brew a potion, you will see all these options in the alchemy menu.

If you fail brewing a potion, your chance of success was higher than 20% and you took the special Alchemy perk, then the potion will be brewed defective: The potion's strength will be multiplied by the Defect Factor, equal to

(Random from 1 to Chance of Success) / 100

Potion Magnitude = Ideal * Potion Strength % * Magnitude Coefficient % / Purification Coefficient

Potion Duration = Ideal * Potion Strength % * Duration Coefficient % / Clear Coefficient * Effect Multiplier

The purification coefficient is applied only to negative effects of potions and positive effects of poisons (if a green drop is visible in the interface, it means you are brewing poison).

Purification Factor = 1 + Distillation Factor * 1 for duration (or 2 for magnitude)

Still Factor = Still Quality * 0.5 (or 1 with Alchemy perk)

The effect multiplier is 100% for potions with 1 effect, 75% for 2 effects, 60% for 3 effects, 50% for 4-8 effects. If the special Alchemy perk is not taken, the effect multiplier for potions with several effects is additionally reduced by 10%.

Potion weight = 1 (or 0.5 with Alchemy perk)

Potion price = 20

+ number of useful effects * 10

– number of harmful effects * 10

* Potion Strength %

* Magnitude coefficient %

* Duration coefficient %

* 0.5 (or 1 if the special Alchemy perk is taken)

The price cannot be lower than 1.

Number of potions brewed = 1

+ 1 if special Alchemy perk is taken and (Base Alchemy + Base Luck) > random 150.

The power of the potions drunk

For positive effects, we drink potions with our own power formula: 100%

+ Will (not higher than 100) / 10

+ Alchemy / (10 or 5 with Alchemy perk)

+20% when drinking at full limit - only if the special Alchemy perk is taken

Next, the power is multiplied by a special **potion limit multiplier**, which cannot be higher than 100% and is equal to:

$100\% - (\text{Volume drunk} - 40 - \text{Limit} / (4 \text{ or } 2 \text{ with Alchemy perk})) / \text{Limit}$

If a special trait is taken, the power of positive effects of potions is reduced by 5 times.

Power of the ingredients consumed

In the original, this mechanic was completely overpowered.

$X = (\text{Alchemy} + \text{Intelligence} / 5 + \text{Luck} / 10) * \text{stamina coefficient} / 4 = 195 / 4 = 48$ at full level.

Effect magnitude = random from 1 to $(X / 2 / \text{effect cost})$

Effect duration = random from 1 to X

That is, you could get 2 mana regen for 48 sec. or a stat buff of +48 for 48 sec., just by eating some scuttle!

That's why the power of such positive effects is additionally reduced to 10% or 25% with the Alchemy perk taken.

If a special trait is taken, the strength of the positive effects of the ingredients will be 0% without the perk and 5% with the perk.

Limit on potions consumed

Limits the bottomless belly of the Nerevarine. End of devouring over 9000 potions in one go.

When you eat an ingredient or potion, your belly fills by 40.

– Alchemy / 10 if the Alchemy perk is taken

This value cannot be lower than 30.

Maximum belly capacity =

$(75 \text{ or } 100 \text{ with Endurance perk}) + \text{Base Endurance} / 4$

If the volume is filled beyond the limit, you cannot eat more. Every second, 1 unit of volume is released.

At the same time, the Nerevarine's mouth also has a volume, and it is not unlimited. You eat something - and you need time to swallow it all. Until the time runs out, you cannot eat anything else.

Time to swallow = $10 - \text{Speed} / (20 \text{ or } 10 \text{ with Speed perk})$

The time to swallow cannot be lower than 3 seconds (or 2 with the Speed perk).

So, ideally you have 3 seconds to swallow a potion, and the volume is filled by 30/125 with each potion you drink. That is, you can drink 5 potions non-stop.

Poisons

Added poison mode (assign a button to enable it in the mod settings). When the poison mode is enabled, you will brew poisons instead of useful potions (that is, your alchemical devices will weaken positive effects and strengthen negative ones). Also, when the poison mode is enabled, instead of drinking potions/poisons, you will apply them to your weapons. In this case, each weapon attack will have a chance to poison the enemy by a certain percentage of the strength of the poison applied.

When using poison to lubricate a weapon, you will receive a certain amount of poison, and when it is depleted, attacks will no longer poison the target.

Poison Volume = $50 + (\text{Base Dexterity} + \text{Alchemy}) * (0.25 \text{ or } 0.15 \text{ with Alchemy perk})$

Bottle Power is the magnitude of the poison bottle, or the duration for effects without magnitude.

Poison Power = $\text{Bottle Power} / (6 \text{ or } 5 \text{ with Alchemy perk})$

Poison Cost per Hit = 30 or 25 with Dexterity perk

– $(\text{Dexterity (not higher than 500)} + \text{Alchemy}) (\text{not higher than 600}) / 40$

Chance to successfully poison a target = 50%

+ $(\text{Dexterity no higher than 500} / 2 + \text{Luck no higher than 500} / 4) * (1 \text{ or } 2 \text{ with Dexterity perk})$

- Target agility / 2
- Luck of the target / 4
- Target armor / 2

Non-magical poisons and poisonous ingredients have a special feature: their resistance formula uses poison resistance instead of magic resistance (this does not apply to elemental effects). Caster bonus, fatigue penalty, critical chance and critical damage do not apply to them.

Throwing bottles

Equip poison while holding Alt and instead of coating your weapon with poison, you'll prepare these bottles for throwing! Switch weapons and unused bottles will turn back into regular poison bottles.

The radius of the hit zone for throwing bottles is always 5.

Bottle Power is the magnitude of the poison bottle, or the duration for effects without magnitude.

Poison power = bottle power / (4 or 3 if Alchemy perk is taken)

User-friendly interface

You can also enable a smart poison recognition mode in the mod settings. A bottle is considered a poison if it has at least 1 negative effect, otherwise it is a potion - and it will be drunk by the player even with the poison mode enabled.

Also added a special mode of activating devices without adding them to the inventory (with the button pressed). If there are available devices nearby, they will be used for alchemy.

GUNSMITH

Repair

Chance of successful repair = 0%

+ Current Gunsmith Skill (up to 100) * 40%

+ Base Strength * 20%

+ Base Dexterity * 20%

+ Base Luck * 20%

* (100% or 150% with Gunsmith perk) + (25% or 50% with Gunsmith perk) if there is a forge nearby

– Item price (not higher than 10000) ^ 0.5 * (1 or 0.5 with Gunsmith perk)

* 50% - only if the item is enchanted and the special Gunsmith perk is NOT taken

Durability Restored on Successful Repair = Random from 1 to

Current Gunsmith Skill (up to 100)

+ (2.5% or 5% with Gunsmith perk) of the item's maximum durability (up to 2000)

* Coefficient = 100%

+ 100% with Gunsmith perk - separate for weapons and armor

+ 100% only if the item is not enchanted and the special Gunsmith perk is taken

* (1.5 or 2 with Gunsmith perk) - if there is a forge nearby

* Quality of repair kit

Upgrading weapons and armor

Allows you to improve fully functional weapons and armor with repair kits. Improved items temporarily gain higher durability than normal: weapons deal more damage, and armor provides better protection. In order to be able to improve weapons and armor, you need to take 2 different Gunsmith perks.

Max % Improved Durability = 100% + Improvement Factor * Max

Skill Coefficient = Gunsmith Skill + Dexterity / 5 + Luck / 10

Skill coefficient cannot be higher than 100

Max = Skill Factor / 1000

* 100% or 150% with the Gunsmith perk (separate perk for weapons and separate for armor)

+ 0.05 with Luck perk

The maximum cannot be higher than the quality of the repair kit/10. Ideally, the maximum = 0.2

Improvement coefficient = Skill coefficient * Repair kit quality

– Item price (up to 10000) ^ 0.5 * (2 or 1 with Gunsmith perk)

- 50 if the item is enchanted and the player does not have the special Gunsmith perk

+ 50 if the item is not enchanted and the player has the special Gunsmith perk

The Enhancement Rate cannot be higher than 100%. If the Enhancement Rate is lower than 0, the item cannot be enhanced.

Ideally, you can upgrade all items to 120% of the normal durability. To do this, you need the best repair kits with quality 2.

ECONOMY

You will no longer be able to sell 1000 of your gold to a dumb merchant for 2000 of his gold. Now all merchants have become insolent and will always offer an unfavorable price. And you will have to literally knock it down to acceptable values, furiously bargaining.

First offer price

First offer price = base * quantity of goods

Selling base = product price / coefficient → round down

Purchase basis = product price * coefficient → round up

The base cannot be lower than 1 gold.

Coefficient = $k_0 - k_1/200 + k_2/200$. Coefficient cannot be less than 1.25.

k0 = 1 + (1 or 0.8 if the Trade for sale perk is taken) or + (0.7 or 0.5 if the Trade for purchase perk is taken)

k1 (for player) = Trade Skill

+ Speech / (10 or 5 with Speech perk)

+ Attractiveness / (10 or 5 with Attractiveness perk)

+ Luck / 10 if the Luck perk is taken

+ Rank * (5 or 10 if the Eloquence perk is taken)

+ Reputation / 2 if the Attractiveness perk is taken

Rank is the player's position in the merchant's guild (from 0 to 10, and if there is no guild, then 0). Big discounts for insiders.

k2 (for a merchant) = Trade + Eloquence / 5 + Attractiveness / 5 + Luck / 10 + 150

- attitude towards the player (not higher than 100 or 150 if the Attractiveness perk is taken, creatures always have 50)

– 30 if the merchant is of the opposite gender to the player and the special Attractiveness perk is taken

If the product has durability, then its price = Base price

* 50% + % strength / 2

That is, a completely broken product costs 50% of its base value.

Also fixed a cheat where you could get infinite money out of nothing, which was achieved using a price rounding error exploit.

Active barter

You can get a better price by active trading. Maximum possible profit = 10%

+10% if special Trade perks are taken separately for sale and for purchase

+ Attractiveness/20 but not higher than 5 if the Attractiveness perk is taken

In total, the maximum profit is 125% of the first offer price. Considering that the most profitable first offer will be with a coefficient of 1.25, then ideally with active trading you will be able to sell and buy things at their cost price. Thus, the exploit of getting infinite money from buying goods below their cost price and instantly selling above their cost price has been fixed.

Chance of success = 50%

* 1 (or 1.1 with Trade perk) – Desired profit / Maximum possible profit

* Merchant's attitude towards you / 100 (Attitude cannot be higher than 100 or 150 if the Attractiveness perk is taken, for creatures it is always 50)

* Player Skill Coefficient / (Merchant's Trading Skill + 50)

Skill Coefficient = $20 + \text{Trade Skill}$

+ Speech Skill / (5 or 2.5 with Speech perk)

+ Attractiveness/5 but not higher than 20 – only with the Attractiveness perk

+ Luck/5 but not higher than 20 – only with the Luck perk

Ideally, the chance to get the best price from a weak merchant with 10 skill = $5\% * 200/60 = 16.6\%$

For an average merchant with 30 skill = $5\% * 200/80 = 12.5\%$

For an experienced merchant with 50 skill = $5\% * 200/100 = 10\%$

Prices for services

Prices for skill training, spell purchases, repairs and travel have also been changed using a similar formula:

Price = base price * coefficient

Coefficient = $1 - k1/200 + k2/200$. Coefficient cannot be less than 0.5.

Investments

Now, if you take the special Trade perk, you can invest in any merchant. Each investment costs 50% of the merchant's maximum gold and gives +10% to his maximum gold. The number of available investments = base trade skill / 10 (but not higher than 10, i.e. doubling the capital). Investments increase the trade skill by 1% of the invested gold.

You can also take the Trade perk and then you can sell any type of item to any merchant.

Random loot

You have a chance to find additional random loot. This chance is calculated for each random item in the containers you search.

Chance = Base Luck * 20% (or 50% with Luck perk)

+ Perception Skill * 20% (or 50% with Perception perk)

STEALTH AND CRIMES

Stealth check

Now the stealth checks are intercepted by the lua module and are completely controlled by it. The check is performed for each active actor:

- 1) Once per second if he is within 2000 range of the player and can see him (no obstructions to view)
- 2) Every frame if it is within 2000 distance from the player, and the player has the effect of invisibility or chameleon, provided that the actor is in combat with the player.
- 3) When an actor is attacked by a player (determines whether a critical hit will be inflicted).

Stealth coefficient = 100% if the detector is in combat with the player, otherwise =

$100\% + \text{Detector Coefficient} - \text{Player Coefficient}$

Stealth coefficient cannot be lower than 50%

Player Coefficient = Base * (50% + % Stamina/2)

* Stealth mode

Base = (Stealth Skill + Dexterity/2) * (0.5 or 1 with Stealth perk)

+ Luck / 4 if the Luck perk is taken

+ Security Skill / 4 if Security perk is taken

Stealth Mode = 0.5 if the hero is sneaking or completely motionless (provided that the Stealth perk is taken), and otherwise the coefficient is 0 (or 0.2 if another Stealth perk is taken)

Detector Coefficient = Security Skill + Luck/4 + Dexterity/4

Distance coefficient = 150% – Distance from detector to player / (3000 or 2000 if Stealth perk is taken)

The distance coefficient cannot be lower than 50%.

Chance of detecting a player = **Visual** + **Auditory**

Both of these components individually cannot be lowered below 0. If a special trait is taken that weakens your stealth ability, then the detection chance will be compared not with a random 100, but with a random 20.

Visual = **Visual Signal** * Stealth Factor * Distance Factor

– Invisibility coefficient (only awarded if the hero is invisible)

- Chameleon

- Detector blindness

Invisibility coefficient = 150 (or 200 if the Illusion perk is taken) – Detector Mysticism skill / 2

Visual signal = 200 if the detector is in combat with the player, otherwise =

200 – Angle of the player's location in the detector's visibility zone * (1 or 1.2 with the Stealth perk)

The angle can be from 0 to 180 (0 if the detector is looking directly at the player, 180 if it is looking in the completely opposite direction).

The visual signal cannot be below 0.

Auditory = **Noise** * Stealth Factor * Distance Factor

* (2 or 0 if player is in stealth mode) + (2 or 1 with Stealth perk)

- Chameleon/2 if the Illusion perk is taken

– The magnitude of the sound effect acting on the detector

Noise = 5 + Inventory weight/5 + Boots weight

You can turn on stealth messages, where all this will be described in real time.

Pickpocketing

Chance of successful pickpocketing =

Player coefficient – Target coefficient – Anxiety – price of stolen goods / 50 – weight of stolen goods * 2

Player Coefficient = Stealth Skill + Dexterity / 2 + Luck / 4 + Perception Skill / 4

– Right Armor Glove Weight * 5

This amount cannot be higher than 200

* 50% or 75% with Stealth perk

Ideally, the player's odds are 150

Target Coefficient = Perception Skill / 2 + Dexterity / 4 + Luck / 4

Anxiety = Anxiety Level * 20, only awarded if there was an attempted theft, anxiety is 0 when exiting the theft menu.

The alarm level starts at 0 and increases by 1 for each theft attempt and is remembered for each NPC. The alarm level decreases by 1 for each day without theft from that NPC.

Crete from stealth

The stealth coefficient for physical damage is applied only if the following conditions are met:

1) The enemy does not participate in combat with the player.

2) For close combat: the blow is delivered from behind, the angle must be higher than 150 or 135 with the stealth perk.

3) For long-range combat: the special Accuracy perk is taken, and the Coefficient must be higher than 100,000 or 500,000 with the same perk.

Coefficient = distance to target * angle (cannot be lower than 50) * 2 (if the player is sneaking)

Melee Damage Bonus = 100%

+100% if the player is sneaking and has the special Stealth perk taken

+100% for short blades or fists if special perks are taken

Ranged damage bonus is always 50%

The armor multiplier for critical hits from stealth is reduced by 10%.

+ Stealth Skill / 5 (if Stealth perk is taken)

* 3 if it is a short blade attack

Lock picking

Chance to pick locks and disarm traps = 0%

+ Perception Skill * 20%

+ Dexterity * 20%

+ Luck * 10%

* 200% – with the Perception perk for hacking or disarming

* Quality of the pick or probe

* Current % of stamina

– Castle level or trap power (its mana cost)

Tip: Use agility focus (and agility enhancing magic) while hacking.

CREATURES

Creature stats

At the first meeting, the creature will receive random stats ranging from 80% to 120% of the norm. Affects health, stamina, magic, all characteristics and skills. The growth of the creature will also change (ranging from 90% to 115%) and will be proportional to health (you will immediately distinguish healthy creatures from frail dwarves).

Base stat values are in CS, base armor values are in lua file. If base armor is not specified for a specific creature ID, then armor is calculated as follows:

$\text{Level}/2 + \text{Endurance}/10$

80% and 120% are the default values. You can change them in the mod settings. This is a kind of replacement for the game's difficulty system instead of the standard multiplier of incoming and outgoing physical damage. To disable stat randomization, set both values to 100%.

Regardless of this setting, summoned creatures will be randomized between 80% and 120%.

New creature abilities

Activate this flag in the mod settings. Then many creatures will receive their own personal lua scripts, thanks to which their capabilities will be expanded in a very significant way. This will make the gameplay much more interesting.

The following description will describe these changes in more detail.

Weapons and spells

Many creatures are given a semi-random set of weapons and spells when first encountered, depending on their power. List of creatures:

Atronachs, Dremora, Dremora Lord, Dremora Mage, Scamp, Daedroth, Spider Daedra, Winged Twilight, Xivkyn, Mazken, Auril.

Skeleton, skeleton archer, skeleton warrior, skeleton champion, all walking corpses.

Ash slave, ash zombie, ash ghoul.

Poisonous Strikes

Some creatures have a chance to poison the enemy when dealing physical damage (damage must be higher than 0 - if the damage is reduced to 0, the poison will not work). The poison effect and the chance to poison are specified separately for each such creature. This poison is considered non-magical - to resist it, poison resistance is used instead of magic resistance.

List of poisoners: alith , kwama forager, male netch, daedroth, spider daedra.

Magical strikes

Some creatures now have a chance to cast an additional touch spell on an enemy when dealing physical damage. The effect and chance are specified separately for each such creature.

List: All Atronachs, Dremora Mage, Auril , Winged Twilight, Skeleton Mage, Bone Lord, Lich, Ancient Lich, All Wraiths, Shalk , Female Netch, Snow Wolf, Snow Bear,

Personal scripts

Atronachs

Firstly, they received huge resistances to their elements, which means that instead of receiving damage from this element, they will restore their health.

Secondly, if a strong atronach's health drops below a certain level, it will gain a large buff: elemental shield, elemental empower, and elemental reflection.

Auril

First, when health drops below half, Golden Saints receive a buff: an elemental or simple shield.

Secondly, when hit by elemental magic, they launch a counter elemental spell at the enemy with proportional power.

Walking corpses

All walking corpses have a chance to resurrect 5-10 seconds after their death with half of the normal health, mana and stamina.

Chance = level * 5

Lich

Strong liches will periodically attempt to perform a ritual to permanently summon weaker undead or heal themselves.

Ancient Lich

Ancient Liches are the most dangerous opponents. Periodically, they will attempt to perform a powerful necromantic ritual with one of several outcomes:

- 1) Constantly summoning medium or strong undead
- 2) Healing all undead around you
- 3) Chance to resurrect all weak undead around you (the higher the level of the fallen undead, the lower the chance)

If you drag out the battle with the ancient lich, you will soon be fighting a whole army of skeletons and walking corpses!

Ascended Sleeper

If the Nerevarine has not yet acquired immunity to the corpus, then when approaching this creature at close range, he will be infected with one of the plague diseases. If the hero stays close for a long time, he will eventually get all 4 plague diseases.

Dwemer Automaton

Find the unique spell - Tonal Architect Identifier.

While it is active on you, all Dwemer automaton will consider you a high-ranking Dwemer and will not

attack.

Bears and Wolves

the Skaal Shaman : Tame Wolf and Tame Bear. This is a creature command effect that only affects wolves or bears.

DragonDoor

Enemies will chase you through doors. This does not apply to cowards (fly parameter above 70), wounded (less than 50% health), creatures without arms and summoned. The distance to you should also not be too high.

The higher the enemy's speed and the lower the distance from him to the door you entered, the faster he runs to this door and moves to a new location. But if you locked this door, the enemies will first spend time breaking down this door. The door lock will be weakened every second by the maximum hacking power among all pursuers, and when it reaches 0, the door will open.

Hack Power = Alteration Skill/2 (only for NPCs with Alteration Skill above 50) or Strength/10 for everyone else.

You can break away from your pursuers by running away from them or by going through a door to another location (in this case, your pursuers should not see where you went). Enemies that have lost sight of you return to their original place.

You can enable stalker alerts in the settings.

Also, the backup mode is enabled by default. Now enemies in interiors will try to call for backup from nearby allies when they first enter combat. You will have $(3 - \text{Enemy Agility} / 100)$ seconds (not less than 1) to prevent them from doing this – kill the enemy, knock him out (stamina below 0), paralyze or silence him.

NPCs have also learned to open doors without banging their heads on them. If someone is groping a door, all the NPCs clustered around it will quickly retreat.

Prohibition on saving during persecution.

Less savescamming . Can be disabled in settings.

GMST

Transcript:

[https://old-wiki.openmw.org/index.php?title=GMSTs_\(status\)#GMSTs](https://old-wiki.openmw.org/index.php?title=GMSTs_(status)#GMSTs)

[https://wiki.openmw.org/index.php?title=GMSTs_\(status\)](https://wiki.openmw.org/index.php?title=GMSTs_(status))

Leveling

fLevelUpHealthEndMult **0.1 → 0**

This is a fundamental change that completely changes the mechanics of the game. Yes, health no longer grows with level. At all. Previously, by level 15, the hero turned into a tank, and by level 30 - into a fucking walking meat farm ! This ruined the essence of all battles and all adventures. What's the point of dangers if the hero is simply immortal? Enough! No more unkillable terminators. However, no more endurance wanking - play the way you want from the very beginning. Want to get healthier? - no problem! Pump up your muscles, run in the morning, eat scuttle and get a good night's sleep - your health will grow to a hundred in no time. Armor is now vital. Now defensive magic like shields and dodge matters! Now combat tactics are not an empty phrase! Pinging? Forget that word! Now two-handed weapons instead of shields are not the only choice. Now you will think twice before going head-on to a weakling casting mage . Now you will think three times before going head-on to an unwashed barbarian with a weighty two-handed sword. Now you will think hard about the fact that maybe you shouldn't just stupidly deal damage, but should first control the enemy? Mistakes are unforgivable. But don't worry, if you really want it, then with a thorough enchantment of clothes for a permanent HP increase effect, you can return from the boring role of a hulk - a big guy from the time of the original Morr , who does not die even from a hundred blows of Dagoth Ur. Lost its power - health is now recalculated by the lua module.

iLevelupTotal	10
iLevelupMajorMult	1
iLevelupMinorMult	1
iLevelupMajorMultAttribute	1 → 2
iLevelupMinorMultAttribute	1 → 2
iLevelupMiscMultAttributes	1
iLevelupSpecialization	1
iLevelUp01Mult	2 → 1
iLevelUp02Mult	2 → 1
iLevelUp03Mult	2 → 1
iLevelUp04Mult	2 → 1
iLevelUp05Mult	3 → 2
iLevelUp06Mult	3 → 2
iLevelUp07Mult	3 → 2
iLevelUp 08 Multi	4 → 2
iLevelUp 09 Multi	4 → 2
iLevelUp 10 Multi	5 → 3

Hare jerk off to 5-5-1 leveling! Play as you want and get stat growth and leveling up as your skills level up automatically . Now you don't have to waste time leveling up everything, but get some semblance of role-playing. It's gone - all leveling in Lua.

fSpecialSkillBonus	0.8
fMajorSkillBonus	0.75 → 1/0.5
fMinorSkillBonus	1 → 1.25 /0.75
fMiscSkillBonus	1.25 → 1.5/1

The hero's talents and predispositions really affect the speed of learning. Especially if you take a trait that accelerates progress in all skills.

Fundamental coefficients. Stamcoef

fEffectCostMult **0.5 → 1**

It is this fundamental coefficient that is proportional to the mana cost of homemade and auto-calculated spells, as well as homemade enchantments. The global formula for magic cost:

$0.5 * (\text{min.strength} + \text{max.strength}) * 0.1 * \text{effect price} * \text{duration} + (0.05 * \text{effect price} * \text{radius})$

Then we multiply all this by the global coefficient, that is, by 1 (previously we divided by 2).

If the target is distant, multiply again by 150%.

If the effect is permanent, the duration is taken as 100.

In the name of simplification and standardization, it was decided to make this global coefficient equal to 1, and then conduct thorough work directly with the prices of each magic effect separately.

With MSR, the duration of instant effects is zero, so the multiplier is effectively 1. In addition, MSR has an option regarding the radius, which changes the basic formula as follows:

$0.5 * (\text{min.strength} + \text{max.strength}) * 0.1 * \text{effect price} * (\text{duration} + 1) * (1 + \text{radius}^2 / 400)$

It is recommended to enable it - it is more logical. Previously, every 20 units of radius was simply equivalent to adding 1 p. cost for 1 second. Now 20 units of radius will double the cost of the spell. And 40 units of radius will quintuple it!

fPCbaseMagickaMult **1(not working)**

fNPCbaseMagickaMult **2 → 5**

All auto-calculating NPCs gain 500% of their intellect mana instead of 200%. Enemy mages will no longer dry out after a few spells.

fAutoSpellChance **80 → 70**

fAutoPCSpellChance **50**

iAutoSpellTimesCanCast **3 → 5**

iAutoSpellAttSkillMin **70**

iAutoSpellAlterationMax **5**

iAutoSpellConjurationMax **2**

iAutoSpellDestructionMax **5**

iAutoSpellIllusionMax **5**

iAutoSpellMysticismMax **5**

iAutoSpellRestorationMax **5**

These parameters are responsible for the system of auto-distribution of spells to NPCs who have auto-calculation of stats enabled. Only spells with auto-calculation of cost can be put on auto-distribution. Spells whose cost 5 times (previously it was 3 times) exceeds the NPC's base mana are not included in the auto-distribution for a specific NPC. To get a spell through auto-distribution, the skill and the stat tied to the skill must be higher than a certain value with a multiplier of 70% (for each effect in the spell), and the base casting chance without taking into account the Stamcoef must be higher than 70%. Since the chance is calculated regardless of stamina, and the real casting chance will be 1.5 times higher with full stamina, we can lower the requirements and thus provide NPCs with better spells. An NPC gets up to 5 of the strongest (by mana cost) spells from each school (for Sorcery 2). The auto-distribution function is very buggy.

fEncumbranceStrMult **5**

What is mass in Morrowind? Obviously not kilograms. Maybe pounds? But then a strongman can carry 225 kg. That's already Erebor. If we take as a basis the weight of a set of steel armor at 20-25 kg, which is equal to 100 units, then 1 unit of mass = 200-250 grams. Closer to the truth.

Let's assume that 1 unit of mass = 200 grams. And 500 units = 100 kg. In principle, it's realistic for a big guy with 100 strength. Especially considering that the game now has many sources of long-term feather.

fDifficultyMult **5**

The difficulty of the game with this rebalance is meticulously calibrated and is calculated exclusively for level 0 of the difficulty slider, which corresponds to 100% incoming and 100% outgoing physical (but not magical) damage. Difficulty levels for reference:

+100 = 500% incoming and 20% outgoing

+50 = 250% incoming and 40% outgoing

-50 = 40% incoming and 250% outgoing

-100 = 20% incoming and 500% outgoing

TimeScale 30.0 → 12.0

Previously, for 1 minute of our time on Nirn, half an hour passed, and now only 12 minutes. Well, the day will pass in 2 hours. There is nowhere to rush - enjoy the atmosphere!

fFatigueBase 1.25 → 1.5

fFatigueMult 0.5 → 0.5

Fundamental GMSTs that determine **the Stamcoef**, which affects a bunch of things. The main thing is the base chance to hit an enemy and the amount of penalty for missing stamina. Now, with full stamina, the chance to hit multiplier will be 150%, and with zero stamina - 100%. And it was 125% and 75%.

The chance to hit has a formula:

$(\text{Weapon skill} + \text{Dexterity} * 0.2 + \text{Luck} * 0.1) * \text{Stamcoef} + \text{attack} - \text{blindness} - (\text{Target Dexterity} * 0.2 + \text{Target Luck} * 0.1) * \text{Stamcoef} - \text{target beacon (but not higher than 100)} - \text{target chameleon} * 0.5 - \text{target invisibility} * 0.5$ (also not higher than 100)

The same with the chance to cast spells: 150% of the norm with full stamina and 100% with zero.

Cast chance = $(\text{Skill} * 2 + \text{Will} * 0.2 + \text{Luck} * 0.1 - \text{mana cost} - \text{sound power}) * \text{Stamcoef}$. So you can safely boost your spells to 165 mana per cast.

This global GMST also affects the block chance, block penetration chance, jump height, fall damage, natural resistance to magic such as paralysis, hacking chance, pickpocket chance, stealth chance, and detection chance.

Natural magic resistance does not have a GMST, so we'll look at it here:

$\text{Resistance} = (\text{Will} + \text{Luck} * 0.1) * \text{Stamcoef} * (50 / \text{attacker's cast chance})$

That is, the average hero or NPC has a resistance of approximately $90 * 0.5 = 45\%$ and increases rapidly if the attacking mage is inept with a low casting chance. The strongest hero has $165 * 0.5 = 82\%$.

If the harmful effect has no magnitude (for example, paralysis or silence), then it is completely cancelled with a double chance of resistance. This means that it is enough to have 62 will and 50 luck to cancel all such magic (with full stamina). So, if we want to magically control a mage or just a cool dude - first we lower his stamina.

If the harmful effect has a magnitude, then the natural resistance will work or not with a standard chance. If it does not work, then the harmful magic will work at full strength. If it does work, then the effect with the magnitude is applied as if you had additional magic resistance in a random amount from 0% to 100%, but this is not certain. Additional magic resistance is possible = $100\% * (X / \text{Resistance})$, where X is a random number from 0 to the Resistance value, and the Resistance itself cannot exceed 100. That is, if 30 is rolled, then the average NPC will receive $100\% * (30/45) = +66\%$ magic resistance.

Has lost its power in almost all respects. NPC cast chance is still controlled by these GMSTs.

fCombatInvisoMult 0.2 → 0.5

The same multiplier that gave an additional 20% chance to dodge an attack while invisible or under chameleon with 100 strength. Now it gives 50%.

Has lost its power. The chance to hit is considered a lua module.

Attacks and damage

fDamageStrengthBase 0.5 → 1.0

fDamageStrengthMult 0.1 → 0.05

Works with MSR. The base physical damage multiplier was 50%. + 1% per point of strength. That was it. Now the base is 100%, and the importance of strength is halved.

Partially deprecated - the damage formula is completely controlled by the lua module, but the damage calculated by the engine is still used to damage the weapon when hitting.

fWeaponDamageMult 0.1 → up to 0.05 / 0.25

Weapons lose durability with each hit equal to 10% of the damage dealt, but not less than 1 durability. This value now becomes floating depending on the attacker, weapon type, player perks and traits.

fHandToHandReach 1 → 0.7

This setting is important for NPC AI, but the actual range of unarmed attacks is calculated by the lua module.

fMinHandToHandMult	0.1 → 0
fMaxHandToHandMult	0.5 → 0.2
fHandtoHandHealthPer	0.1 → 0.25

With your fists, you now remove stamina in the amount of 0% to 20% of the value of your melee skill - up to 20 at 100. Damage to health is cut by 4 times. With MSR, strength will also boost the damage of fists according to the formula: multiplier = Strength / 40. That is, 100% damage for 40 strength and 250% for 100 strength. And this means that for 100 strength and skill, the damage will be up to 50 stamina and up to 12 health. Very powerful in terms of knocking out enemies, even taking into account a small nerf. And this power will become simply exorbitant if you buff strength.

Lost its power. Fist damage is controlled by Lua.

fKnockDownMult	0.5 → 0.5
iKnockDownOddsBase	50 → 101
iKnockDownOddsMult	50 → 50

To knock down, you need to deal damage (excluding armor) that is greater than the target's agility * fKnockDownMult .

But there is a chance to avoid a knockdown, which is equal to
 $iKnockDownOddsBase + Target's\ Agility * iKnockDownOddsMult / 100$

So if you have over 100 agility, you will never be knocked down.

Deprecated. Knockdown chance is now fully controlled by the lua module. iKnockDownOddsBase made 101 to override vanilla logic.

fCombatKODamageMult **1.5**

They hit him while he's down! And deal one and a half damage!

Has lost its power, is controlled by Lua.

fCombatDistance	128
fCombatAngleXY	60 (0.666) → 0.4/0.5 or 2/2.5 times more for cutting
fCombatAngleZ	60 (0.666)

Mechanics of the weapon attack hitbox . When attacking, a cone is created with the apex in the center of the character. The value of fCombatAngleXY / 2, converted to radians, is the radius of the cone base, the height of the cone is the distance to the impact point, and in Z in local coordinates it is scaled with the multiplier fCombatAngleZ / fCombatAngleXY . It is used if the beam at the impact point did not hit the target.

In the game, these GMSTs take different values than in CS - 60 in CS corresponds to 0.666 in the game, that is, an angle of 90 degrees is taken as 1. The second GMST is dynamically adjusted by the perk and the direction of attack.

Armor

iHelmWeight	5 → 10
iPauldronWeight	10
iCuirassWeight	30
iGauntletWeight	5
iGreavesWeight	15
iBootsWeight	20 → 15
iShieldWeight	15 → 25
fLightMaxMod	0.6 → 0.5
fMedMaxMod	0.9 → 1.0

These are armor weight coefficients. For more details, see the armor changes section.

fCombatArmorMinMult **0.25 → 0**

The armor is not so cardboard anymore. Previously, the minimum irreducible damage was as much as 25% of incoming damage, and now it is 0%. The formula for cutting off physical damage:

$\% \text{ Damage Received} = \text{Incoming Damage} / (\text{Incoming Damage} + \text{Armor})$

A 20 damage splash lands, and you have 80 armor. % of damage received = $20/(20+80) = 20\%$. Previously, the hero would still receive 5 damage, since 25% was the minimum. Now, he will receive 4.

Now let's pump up the armor to 180. $20/(20+180) = 10\%$ of 20 = 2 damage.

Let's undress naked. $20/(20+10) = 66\%$ of 20 = 14 damage.

Has lost its force.

iBaseArmorSkill **30 → 50**

Now on to the normal way armor. Was 100% at 30 skill and 333% on hundredths. It became: 60% at 30 skill and 200% at 100. This is a balanced value thanks to the GMST from another section.

Lost its power. Now the Lua module calculates armor using a more realistic formula: 100% at 0 skill, 200% at 100 skill.

fUnarmoredBase 1 **0.1**

fUnarmoredBase 2 **0.065 → 0.01/0.02**

Nerevarine's skin has been softened: now 10 armor (with perk 20) at 100 unarmored combat instead of 66 (grows parabolically depending on skill: $GMST1*GMST2*skill^2$).

Movement speed and jumping

fMinWalkSpeed **100**

fMaxWalkSpeed **200**

fMinWalkSpeedCreature **5 → 0**

fMaxWalkSpeedCreature **300**

fEncumberedMoveEffect **0.3 → 0.5**

fBaseRunMultiplier **1.75 → 3**

fAthleticsRunBonus **1**

Speed Base = $(Min + (Max - Min)*speed*0.01) * (1 - \%load*0.5)$

Running Speed = Base * $(3 + Athletics/100)$

Load percentage now affects speed much more than before (cuts speed to 50% at maximum load instead of 70%).

Now 300% speed just for running (instead of 175%) - note that this is a separate multiplier that is multiplied by the new base after speed is applied. Athletics still gives another +1% speed for each skill point. This way, NPCs won't crawl like turtles: their speed is approximately $150*(3+0.33) = 500$ (50 speed and 33 athletics).

Has lost its power. The speed is completely controlled by the lua module.

fMinFlySpeed **5**

fMaxFlySpeed **300**

Flight speed = $(Min + (Max - Min) * (speed + magnitude)*0.01) * (1 - \%load*0.5)$

Levitation is unchanged. In fact, it is a triple sum of speed and levitation. Load affects the same as running.

Has lost its force.

fSwimRunBase **0.5**

fSwimRunAthleticsMult **0.1**

Swimming = Running speed * $(1 + swimming\ speed * 0.01) * (0.3 + athletics/100 * 0.1)$

The base swimming speed is significantly reduced, but the athletics bonus is increased by 2 times if you take the perk. Now we swim at half the running speed with 100 athletics. 1% is added to the final speed value for each unit of the fast swimming effect.

Has lost its force.

fHoldBreathTime **20 → up to 50/100**

fSuffocationDamage **3 → 10**

Now it's really scary to be in the deep without air. No more amphibious people who can swim underwater

for as long as they want, struggling to survive. panties enchanted for constant regeneration. However, the time before the Nerevarine goes to feed the killer fish has been increased to an almost sane 50, and with perks, all 100. Those 20 seconds from the original are some kind of Nerevarine smoker. And a skooma one at that .

fJumpAcrobaticsBase	128
fJumpAcroMultiplier	4
fJumpEncumbranceBase	0.5
fJumpEncumbranceMultiplier	1
fJumpRunMultiplier	1

Jump power formula. It was like this. Base 128 + up to 122 for acrobatics up to 50 skill. Another + 12 for each skill point over 50 (i.e. +600 per 100). Total 850 at 100 acrobatics. Another + 64 for each point of power of the enhanced jump spell.

Jump power multiplier depending on load. Was: 50 + 100 = 150% light, 50% fully loaded.

Fatigue jump power multiplier. Was: 75% at zero stamina and 125% at full stamina. Now: 100% at zero and 150% at full. (global stamina GMST)

All of this is no longer valid, as the jump force is now controlled by the lua module.

fJumpMoveBase	0.5
fJumpMoveMult	0.5

Jump speed is multiplied by: 0.5 + 0.5 per 100 acrobatics.

fFallDamageDistanceMin400	
fFallDistanceBase	0
fFallDistanceMult	0.07 → 0.1
fFallAcroBase	0.25 → 1
fFallAcroMult	0.01

Fall damage is pretty buggy .

Base Damage = Fall Height - 400 - Acrobatics * 1.5 - Super Jump Magnitude

Final Damage = Base Damage

* 0.25 (now 1) + 1 – Acrobatics * 0.01

* 0.07 (now 0.1)

* 1 – StamCoef / 4

If the damage is greater than Acrobatics * StamCoef , the actor falls down.

Partially lost its power. The damage itself is calculated by the lua module, but this only happens if the engine decides that the damage will be received according to the standard buggy formula. Knockdown depending on the engine's (non-existent) damage.

Stamina Shields

fFatigueReturnBase	2.5 → 10
fFatigueReturnMult	0.02 → 0.2

regenerates 10 + Stamina*0.2 = 30 stamina per second with 100 stamina.

fFatigueSpellBase	0 → 0.5
fFatigueSpellMult	0 → 0.5

Now casting consumes stamina. Works correctly only with MSR. New formula:

Stamina Cost = Mana Cost * (0.5 + 0.5 * Load %)

If you're carrying light, then the spells will just as easily fall from your hands, but if you're exhausted under the weight of 10 sets of Ordinator armor, then you'll have to really push yourself.

fFatigueRunBase	5 → 20
fFatigueRunMult	2 → 20
fFatigueSwimWalkBase	2.5 → 20
fFatigueSwimWalkMult	0 → 20
fFatigueSwimRunBase	7 → 30

fFatigueSwimRunMult	0 → 30
fFatigueSneakBase	1.5 → 0
fFatigueSneakMult	1.5 → 20

Base + (coefficient * % load)

Running light now costs 20 stamina per second - run forever and tirelessly with 50 stamina (not counting perks). But just fill your bag with junk - and you will fall off your feet from fatigue after running only 10 meters. As much as 40 stamina per second at full load!

fFatigueJumpBase	5 → 0
fFatigueJumpMult	0 → 0

Base + (coefficient * % load)

All GMSTs have been reset - now stamina consumption for jumping is controlled by the lua module.

fFatigueAttackBase	2 → 0
fFatigueAttackMult	0 → 0
fWeaponFatigueMult	0.25 → 0

Base + (coefficient * load %) + (Weapon weight * coefficient * swing)

All GMSTs have been reset - now stamina consumption for attacks is controlled by the lua module.

fFatigueBlockBase	4 → 0
fFatigueBlockMult	0 → 0
fWeaponFatigueBlockMult	1 → 0

Base + (coefficient * load %) + (Weapon weight * coefficient * swing)

All GMSTs have been reset - now stamina consumption for blocking is controlled by the lua module.

iBlockMinChance	10
iBlockMaxChance	50
fBlockStillBonus	1.25
fSwingBlockBase	1
fSwingBlockMult	1

Block chance is equal to the defender's parameter minus the attacker's parameter. The attacker's parameter has the formula: (weapon skill + Dexterity*0.2 + Luck*0.1) * Stamcoef

Defender's parameter = (defense skill + Dexterity*0.2 + Luck*0.1) * Stamcoef * (1 + 1 at full swing of the attacker) * 1.25 (defense bonus).

That is, the stronger the opponent's swing, the higher the chance of a block.

The defense bonus (*1.25 block chance) is only awarded if the blocker does NOT move forward.

The final block chance cannot be lower than the minimum or higher than the maximum.

Deprecated - block chances are now controlled by the lua module.

fCombatBlockLeftAngle	-90 → -1 (-90)
fCombatBlockRightAngle	30 → 0.5 (45)

Block possible only if the enemy is in a sector from 90 degrees to the left of your sight and up to 45 degrees to the right of your sight. That is, we blocked without bothering. Now this sector is significantly narrowed depending on the stance and perks, controlled by the lua module.

In the game, these GMSTs take different values than in CS - in the game, 30 corresponds to 0.333, that is, an angle of 90 degrees is taken as 1.

Enchantment. Alchemy. Blacksmith

fEnchantmentMult	0.1
-------------------------	------------

Determines the capacity of items to be enchanted. If a ring has a capacity of 1000, it can be enchanted for 100.

iMagicItemChargeOnce	1
iMagicItemChargeConst	10

iMagicItemChargeUse **5**
iMagicItemChargeStrike **10**

Determines how many charges enchanted items will have during autocalculation : for 1 use for one-use scrolls, for 5 uses for enchantments on use, for 10 hits when enchanting weapons for the effect on hit.

iSoulAmountForConstantEffect **400 → 100**
fEnchantmentConstantDurationMult **100**
fEnchantmentChanceMult **3 → 2/1**
fEnchantmentConstantChanceMult **0.5 → 0.5/1**

To enchant permanently you need a soul of 100, not 400.

Once the capacity is filled, the enchantment for a permanent effect costs the same as a normal one, but for 100 seconds.

The chance of successful homemade enchantment is increased if you take the perk (reduces the penalty from 2 to 1).

Base Chance = (Enchantment Skill + 20% Intelligence + 10% Luck) * Stamcoef

Total 195% per hundred square meters.

With the perk, each unit of capacity used reduces the chance by 1.5%. Total -150% for 100 capacity.

At the same time, for permanent enchantments this chance was cut by 2 times. The cut is removed if you take the perk.

fMagicItemRechargePerSecond **0.05 → up to 0.1**

How much charge is regenerated per second for each item in the inventory. Now controlled by the lua module and equal to Enchantment/2000 or 1000 if the perk is taken, that is, the same 1 charge per 20 or 10 seconds per hundred skill.

fSoulGemMult **3**

A soul stone can hold a soul of volume = Soul Stone Price * 3

That is 30, 90, 150, 300, 600

fPotionStrengthMult **0.5**
fPotionT 1 MagMult **1.5 → 15/10**
fPotionT1DurMult **0.5 → 3/2**

Lost its power with the introduction of the alchemical lua module. Below is a description of how it was in the original.

Alchemist Strength = (Skill + Intelligence/10 + Luck/10) * mortar quality * 0.5

The secret master's devices will have a quality of 2.00, so the Alchemist's Power per hundred = 120

If the quality of the device is 0, the game considers that the device does not exist.

Potion Power = Alchemist Power / Effect Cost. With new costs in the mod: HP and Mana Restore = 10, Poison = 5, HP Take Away = 4, Stamina Take Away = 1, Stat Increase = 0.5, Resistances = 0.5, Fire Shield = 2, Paralysis = 50, Invisibility = 30, Levitation 5, Stat Decrease = 0.5, Health Decrease = 0.3, Stamina Decrease = 0.1

Effect Magnitude = (Potion Power / GMST Magnitude) + Retort*2 + Calcinator

Effect duration = (potion strength / duration GMST) + retort*2 + calcinator

Both strength and duration can be improved by taking perks.

If there is only magnitude or duration, then + 2/3*(retort + calcinator) + 0.5. But if there is only a retort or only a calcinator, then *(quality + 0.5)

For negative effects, instead of a bonus, divide by (perg . cube*2 + calcinator*3)

At the end, the magnitude and duration are rounded to integers according to the rounding rules.

Potion price = alchemist power * GMST prices

So the maximum duration and magnitude bonus for devices = 6 p. and 6 seconds. For those with no magnitude or duration +3.16 (with 2 devices) or *2.5 (with 1 device). The base magnitude of the best potion = 120/10 = 12. And the base duration = 120/2 = 60

Now the best potions look like this:

HP or mana regen = 12/10 + 6 for 60/10 + 6 sec. = 7 p. for 12 sec. = 84

Poison and Levitation = 12/5 + 6 x 60/5 + 6 sec. = 8 p. x 18 sec. = 144

HP Removal Poison = 12/4 + 6 x 60/4 + 6 sec. = 9 p. x 21 sec. = 189

Fire Shield = 12/2 + 6 x 60/2 + 6 = 12 x 36s.

Poison or stamina regen = $12/1 + 6 \times 60/1 + 6 = 18 \text{ p.} \times 66 \text{ sec.} = 1188 \text{ stamina}$

Resistances or stat boost or poison on stats = $12/0.5 + 6 \text{ for } 60/0.5 + 6 = 30 \text{ for } 126 \text{ sec.}$

Health Reduction Poison = $12/0.3 + 6 \times 60/0.3 + 6 = 46 \text{ for } 206 \text{ seconds.}$

Stamina Reduction Poison = $12/0.1 + 6 \times 60/0.1 + 6 = 126 \text{ for } 10 \text{ minutes.}$

Paralysis = $60/50 + 3 = 4 \text{ seconds.}$

Keep in mind that at the peak of his powers with the best tools, the Nerevarine brews some potions worse than store-bought analogues. And all because the Nerevarine's brewing method is extremely fast mashing, while professional alchemists use a full-fledged long-term technological process and not in the field, but in full-fledged laboratories. So if you want to have the advantages of speed and endless bottles appearing out of thin air - pay for it with the quality of potions. In this collapse of cheating alchemy, there is another advantage - purchasing ready-made potions from alchemists instead of ingredients has regained its relevance.

Weight of potions taking into account the option from MSR =

$(0.75 \times \text{total weight of ingredients} + 0.35) / (\text{quality of still} + 0.5)$

That is, with the weight of ingredients 0.1 and the quality of the cube 2.0, the weight of the potion is

$(0.15 + 0.35) / 2.5 = 0.2$

The Lua module completely controls the alchemist's power, GMST power and duration, changes the cost of effects on the brewing time of potions and completely changes the logic of the chance of successful brewing and potion pricing.

iAlchemyMod **2 → 0 / 1**

The swill that the Nerevarine distills from scuttle and corpus tears on an industrial scale is only good for personal consumption. Few would dare to try it, much less gift the hero with mountains of gold. Prices for moonshine have been reduced to zero and increase if you take the perk.

No longer valid - the price of potions is regulated by the lua module.

fRepairAmountMult **3 → 1/2/3**

Chance of successful repair = $(\text{Blacksmith} + \text{Strength}/10 + \text{Luck}/10) \times \text{Stamcoef}$

At 1.00 hammer quality, repair randomly restores 1-100 durability at a time (previously it was 3-300). You can increase the multiplier to 2 with a perk. Another perk gives you another +1 when you are near a forge.

Lost its power - the repair speed is regulated by the lua module.

Prices. Trade. Persuasion

fRepairMult **1 → 2/1**

fSpellValueMult **10 → 20/10**

fSpellMakingValueMult **7 → 20/10**

fEnchantmentValueMult **1000 → 100/50**

iTrainingMod **10 → 20/10**

The cost of training with trainers, purchasing spells, repairs and travel is now calculated by the lua module.

The training price base is taken as $20 \times \text{skill level}$. Or 10 with perk.

Spell creators require 20x the amount of gold from the mana cost, like for regular spells. With the perk - 10x.

Enchanters used to demand an astronomical fortune for their work. Now their services are still expensive, but not so mind-bogglingly so, especially if you take the perk.

fBarterGoldResetDelay **24 → 24/12**

With the perk, traders refresh their cache twice a day instead of once. Less abusive waiting.

fBargainOfferBase **50**

fBargainOfferMulti **-4 → -20**

The formulas for calculating the price when trading are confusing and terrible. So this function is now taken over by the lua module. In the original, there were 4 decreases in the merchant's patience reserve for each additional percentage of discounts knocked out. When fully pumped, the value of -20 will allow you to knock out about 15% more favorable offers from a weak merchant. And the value of -14 will allow you to knock out even

25% more favorable offers.

iBarterSuccessDisposition	1 → 1/3
iBarterFailDisposition	-1 → -3/ -1

Traders get angry faster when they fail to get a discount (-3 relations). This reaction can be smoothed out by taking a perk - they will become more happy for each successful deal (+3 relations)

fDispPersonalityBase	50 → 100/50
fDispPersonalityMult	0.5 → 0.3/0.5
fDispRaceMod	5 → 5/30
fDispFactionMod	3 → 3/5
fDispFactionRankBase	1
fDispFactionRankMult	0.5
fDispCrimeMod	0 → 0.02/0
fDispDiseaseMod	-10 → -30
fDispWeaponDrawn	-5

The overall effect of Attractiveness on attitude has worsened and will return to normal if you take the perk. Another perk improves the attitude of members of your race, another - members of one faction (and worsens the attitude of members of hostile factions).

Criminal attitude now decreases by 20 for every 1000 reward. This decrease disappears if you take the perk.

The attitude towards the plague-ridden Nerevarines has become significantly worse.

fPersonalityMod	5 → 10/5
fLuckMod	10 → 20/10
fReputationMod	1 → 0.5/1
fLevelMod	5 → 2/5

These are coefficients that influence the importance of the GG's attractiveness, luck, reputation, and level during eloquence checks. For attractiveness and luck, this is a divisor, and for reputation and level, this is a multiplier.

iPerMinChance	5 → 0 /10
iPerMinChange	10 → 0/10
fPerDieRollMult	0.3 → 0.1/0.2

The minimum chance of success has been reduced from 5% to 0%, as well as the minimum effectiveness of a successful persuasion from 10 to 0.

Overall persuasion effect multiplier reduced to 0.1

Common to all four types of persuasion is the minimization of chances at the extreme positions of the attitude. First, a coefficient is calculated, depending on the attitude. It is equal to 1 at 50 and tends to 0 at 0 or 100 attitude. Even if your chance of success is very high, like 150% or even 300%, it will still be multiplied by this coefficient, that is, it will be reduced to 0% if the NPC really likes or really dislikes you.

fBribe10Mod	35 → 10/20
fBribe100Mod	75 → 30/50
fBribe1000Mod	150 → 50/100

Bribes are now slightly more difficult to give. The absolute increase in the chance of a successful bribe has been reduced for 10, 100, and 1000 gold.

Stealth. Theft. Crimes

fSneakUseDist	500
NPC Crime Detection Radius (inaccurate)	
fSneakUseDelay	1
Frequency of verification (not exact)	

fSneakSpeedMultiplier	0.75
fSneakDistanceBase	0.5
fSneakDistanceMultiplier	0.002 → 0.001
fSneakViewMult	1.5 → 3
fSneakNoViewMult	0.5 → 1
fSneakSkillMult	1 → 0.5
fSneakBootMult	-1 → -3

Movement speed in sneak mode is 75% of walking speed.

The formula for stealth success is simple: your stealth chance minus the NPC's detection chance. It is calculated every second or every frame if the player is in combat and has invisibility or chameleon applied to him.

Stealth chance = (Stealth*0.5 + Dexterity/5 + Luck/10 – weight of boots*3) * (0.5 + distance*0.001) * Stamcoef + chameleon + 100 (if invisibility is in effect)

Detection chance = (NPC stealth + Dexterity/5 + Luck/10 - blindness) * Stamcoef * (1 or 3 depends on hitting the NPC's 180 degree viewing angle)

We take perks: for 100% skill efficiency, to reduce the boot weight penalty to 1, to reduce the detection penalty for being in/out of sight.

Nerevarine with 100 has a 195% stealth chance everywhere, which is cut in half at point-blank range and gradually increases as the distance to the NPC increases. That is, approximately 100% chance close + another 100% from invisibility. The average NPC has 90% or 180% depending on whether you approach him from behind or from the front. That is, stealth when in the line of sight has become significantly more difficult, so try to approach from behind. Chameleon in this regard has ceased to be a cheat that allows you to approach NPCs head-on and do whatever you want.

Now all these formulas are cancelled, since the lua module is now responsible for detection.

fCombatCriticalStrikeMult 4 → 2/3/4

Crits from stealth are initially weakened, now double damage instead of quadruple. Otherwise they've created a quake here. Stealth and knife perks dynamically increase this multiplier.

Let's take into account that now you can deal normal crits in normal combat, so both types of crits can overlap each other.

iPickMinChance	5
iPickMaxChance	75
fPickPocketMod	0.3

Chance of pickpocketing is calculated as follows: (Skill + Dexterity/5 + Luck/10) * Stamcoef * 2 – ((item price * 10 * 0.3) + NPC Skill + NPC Dexterity/5 + NPC Luck/10) * Stamcoef

The success rate cannot exceed 75%. The minimum chance of a successful theft is equal to the stealth skill divided by 5, i.e. 20% at 100 stealth and 6% at 30 stealth.

Ideally, for 100 total, your initial chance of stealing will be 390%. Minus 90% for the average NPC. And minus 3% for every septim of the cost of the stolen item. At the same time, keep in mind that even just leaving the pocket of an NPC is already perceived as stealing an item with 0 cost. Yes, the formula is miserable, so you can turn on the option in the MSR, which radically changes the calculations, making them dependent on weight and removing the chance restrictions. But I don't know the new formula from the MSR, and it is not clear how these GMSTs now affect the process.

No longer effective. Thefts are controlled by the lua module.

fPickLockMult	-1
fTrapCostMult	0

Chance of lockpicking = (Skill + Dexterity/5 + Luck/10) * (quality of lockpick) * Stamcoef + (quality of lock * -1).

Chance to defuse = (Skill + Dexterity/5 + Luck/10 + (trap cost in mana * 0)) * (probe quality) * Stamcoef

As we can see, in the original, the strength of the trap does not affect the chances of breaking in any way.

It has lost its power, now the hack is controlled by the lua module.

iCrimeKilling	1000
iCrimeAttack	40
fCrimeStealing	1

iCrimePickPocket 25

iCrimeTresspass 5

These values will be used as penalties for various crimes and as a basis for NPC reactions to these crimes.

iCrimeThreshold 1000 → 1000/3000

iCrimeThresholdMultiplier 10

fCrimeGoldDiscountMult 0.5 → 0.5/ up to 0.2

fCrimeGoldTurnInMult 0.9 → 1/ to 0.5

The first GMST is the fine amount, starting from which the guards will immediately kill you without arresting you. With the perk it has increased. We divide this amount by 10 and get the fine, starting from which you are placed on the wanted list.

The third GMST is a part of the fine that can be paid to the Thieves Guild for ransom. The fourth is a part of the fine to be paid upon surrender to the authorities. 2 perks allow you to get significant discounts. Perks allow you to improve all this, making the life of the criminal easier.

iFightAttack 100

iFightAttacking50

iFightDistanceBase 20

fFightDistanceMultiplier 0.005

fFightDispMult 0.2

fFightStealing 50

iFightPickpocket25

iFightTresspass 25

iFightKilling50

NPC reactions to your crimes.

Artificial idiot

fCombatDelayCreature 0.1 → -0.5

fCombatDelayNPC 0.1 → -0.5

Previously, the forced delay between enemy attacks was random, but not more than a second (base + 0.9 sec). Now the delay will not exceed 0.4 seconds, and in 50% of cases it will be completely absent.

fMagicCreatureCastDelay 1.5 → 0

Reduced delay before mages start casting their spells. Now they do it non-stop. Probably not working.

fAIMeleeWeaponMult 2

fAIRangeMeleeWeaponMult 5 → 70

fAIMagicSpellMult 3

fAIRangeMagicSpellMult 5

Affects AI in combat. Spells with a "target" effect have 60% higher priority than spells with a "self" cast.

NPCs prefer the highest rated spell where rating = magickaCost * castChance * (fAIMagicSpellMult (touch) OR fAIRangeMagicSpellMult (ranged , not in water))

For weapons, damage * attack speed * skill is calculated. You'll have to set it to about 60 so that guards with 12 accuracy prefer to put away melee weapons and pick up stones with 0-5 damage.

fAIFleeHealthMult 7 → 88.888

fAIFleeFleeMult 0.3 → 0

fFleeDistance 3000 → 5000

In the original, the enemy starts to run away in three cases:

- 1) when there is a difference in height between it and the player,
- 2) if the flee parameter >= 100
- 3) if the escape rating exceeds 80

Escape Rating = Missing Health % * First GMST + Flee Parameter * Second GMST

This mechanic has been completely changed by the lua module.

Mechanics of agra

When aggro reaches 100, the enemy will attack. When casting the pacification effect, aggro is recalculated, and if it falls below 100, the battle ends.

$\text{Agr} = 20 + \text{fight parameter} - \text{ratio coefficient} - \text{distance coefficient}$

$\text{Ratio coefficient} = (\text{ratio} - 50) / 5$

For creatures, the coefficient is always -10, meaning aggro always increases by 10. For NPCs, a ratio of 100 reduces aggro by 10, and a ratio of 0 adds 10 aggro.

$\text{Distance coefficient for npc} = \text{distance} / 200$

$\text{Distance coefficient for creatures} = (\text{distance to 2000}) / 100 + \text{remaining distance} / 200$

1000 distance will reduce aggro by 5 for NPCs and by 10 for creatures.

3000 distance will reduce aggro by 15 for NPCs and by 25 for creatures.

Other

fProjectileMinSpeed 400 → 2,000

fProjectileMaxSpeed 3000 → 6000

fThrownWeaponMinSpeed 300 → 2000

fThrownWeaponMaxSpeed 1000 → 3000

fTargetSpellMaxSpeed 1000 → 4000

Projectile speed is $\text{Min} + (\text{Max} - \text{Min}) * \text{swing}$. Either way, arrows and throwers now fly very fast – you can't dodge them like in the original. Spell speed is also doubled.

Lost its power - now completely controlled by the lua module.

fProjectileThrownStoreChance 25 → 0

The chance to return an arrow, controlled by the GMST, is now 0. In its place, a new mechanic for breaking arrows, controlled by the Lua module, has been added.

iMonthsToRespawn 4 → 7

Organic container contents are now refreshed every 7 days instead of every 4 months. Only works if this feature is enabled in MSR.

fRestMagicMult 0.15 → 0.5

Mana regenerates faster in sleep. Now 50 per hour with 100 intellect.

fSleepRandMod 0.25 → 0.5/0.1

fSleepRestMod 0.3 → 0.5

iNumberCreatures 1 → 3

Sleeping in the wasteland has become more fun! Now there is a chance to get up to three creatures instead of one. The probability of attack has been increased to 50% (with a perk of 10%). Only sleeping for 1 hour is guaranteed to be safe (previously it was up to 3 hours). However, the function works with bugs.

fDiseaseXferChance 2.5 → from 20 to 5

The chance of infection when receiving an attack from disease carriers is increased by default and is greatly reduced by Luck, and even more so if the perk is taken.

$\text{Chance of Infection} = 20\% \text{ (or } 10\% \text{ with Luck perk)} - \text{Luck}/20$

fElementalShieldMult 0.1 → 1

Elemental shields made of useless steel are a really effective mechanic, the damage from them has increased tenfold. This is how much elemental damage the attacking shielder receives for each unit of his shield power. At the same time, elemental resistance perfectly cuts this damage, in addition, the skill of destruction, will and luck, the state of stamina and randomness give a hefty increase to this resistance up to 100%. The amount of additional resistance is calculated as follows:

$((\text{Destruction Skill} + \text{Will} + 0.2 + \text{Luck} * 0.1) * 1.25 * \text{Stamcoef}) - \text{random number from 0 to 100}$

Lost its power - now completely controlled by the lua module.

Skill growth rates

This is not controlled through the GMST, but through the skills section.

caste	school	1 (scaling from mana costs)
Weapons	Strike	1 (scaling from damage and enemy level)
Armor	hit1	(scaling from damage and enemy level)
Protection	block	2.5 → 1
Acrobatics	jump	0.15 → 1 (scaling from height)
	fall3	→ 1 (scaling from fall speed)
Athletics	running	1 s.0.02 → 0.0 5 (scaling from load)
	swim	1 sec. 0.03 → 0.05 (scaling from load)
Enchantment	creation	5 → 10
	recharge	5 → 5
	use	0.1 → 1 (scaling from charge costs)
	on hit	0 → 0.5 (scaling from charge costs)
Blacksmith	repair	0.40 → 1 (scaling from the amount of repair and the price of the item)
Alchemy	devouring	0.5 → 0.1
	cooking	2 → 1
Eloquence	success	1 → 1
	failure	0 → 0.1
Trade	successful trade	0.3 → 0.1 Added bonus experience for money
	bribe	1 → 0 (actually 0.1 due to bug)
Hack	Hack	2 → 1 (scaling from lock level)
	defuse	3 → 1 (scaling from the cost of casting a spell on a trap)
Snick	hidden	1 s.0.25 → 0.5
	stole	2 → 3 (with MSR you can abuse 1 coin)

MAGICAL EFFECTS

The global formula for magic value with MSR is now:

$$0.5 * (\text{min.strength} + \text{max.strength}) * 0.1 * \text{effect price} * \text{duration} * (1 + \text{radius}^2 / 400)$$

If the target is distant, multiply again by 150%

If the effect is instant, then duration = 1

If it is a permanent enchantment effect, then duration = 100

That is, in essence, for the cost of an effect of 1 for 1 second, we divide the nominal value by 10, and for enchantment for a constant effect of 1, we multiply by 10.

Please note: the global cost coefficient of all magic has been changed from 0.5 to 1 . So the old prices of all effects in this table can be halved.

Based on this, the cost of all effects has been rebalanced . Imbalances have been nerfed, and those effects that were unprofitable to use due to their absurdly high cost have been made cheaper, which will significantly increase the number of playstyles.

The Excel table of effects, in addition to the price, shows the parameters of the best potion. Effects with a limited minimum duration for homemade spells (usually 10 seconds, 20 for summons) are highlighted in red.