# GAMMA 1.28.00

**GAME AND MONSTER MANAGEMENT APPLICATION**

JJF

# Table of Contents

# GAMMA

**Game and Monster Management Application**

## About GAMMA

This application is for use by players and dungeon masters of Dungeons and Dragons Fifth Edition. It provides the tools to enter relevant data for creatures, items, spells, characters, and more in order to help streamline certain gameplay aspects and allow users to focus more on the game and role-playing directly.

This application also includes functionality for homebrew mechanics by the developer, such as alcohol consumption and fishing for players.

## GAMMA and Data

Data included with GAMMA is homebrew for use with developer-made mechanics such as fishing and enchanting, or is part of the Standard Reference Document (SRD) for Dungeons and Dragons Fifth Edition. There are no plans to include other official Wizards of the Coast material due to licensing.

## About the Development

This is a passion project made in my spare time. It started as a prototype called the DMTK (Dungeon Master's Tool Kit) but never saw a public release. The original draft was just an initiative and basic info tracker for combat to be used by a DM. Instead, scope creep has caused a massive increase in complexity and features available for DMs and Players.

I intend for this to always be a free project as my way of giving back to the D&D community for all the free fan made utilities and artwork that I've also made use of. If some day in the future I truly do not wish to continue development of this project I will make the full source code available to all.

## Common Controls and Fields

These are controls that will appear throughout GAMMA that have the same expected functionality wherever they appear unless otherwise stated.

Obviously labeled fields such as Name and Description will be omitted unless additional functionality needs to be explained, as well as various fields that should be obvious to those familiar with D&D rules.

## Tt Source / Sourcebook Field

This is the source of this data, such as Player's Handbook or Homebrew. This determines whether the data is wiped by the developer before release to ensure non-SRD data is not being shared.

## ✔ Data Validated Checkbox

This indicates that the data has been validated and is ready for use. For example, a creature that has not been validated will not appear for selection in other parts of the application such as Packs or Minions.

## ➕ Add to Collection

Creates a new entry for a list of items.

## ⇅ Sort Collection

Sorts a list of items alphanumerically by their name. Spells are first sorted by their level.

## ✖ Delete Item from Collection

Deletes the item from the currently viewed collection.

## 🔧 Toggle Edit Form

Displays the form for an item in a collection to be modified.

## 💾 Save Data

Saves the data for the currently viewed screen to its preset XML file in the Data directory for the application.

## ⤓ Import Data

Import data to the currently viewed screen from an XML file.

## 🔍 Search

Indicates a text search field, typically to filter a viewed collection.

## 🔻 Show Filters

Shows search filters for a collection.

## ⓘ Show Information

Hovering over this will show a tooltip for additional information on the item.

## 📋 Context Menu

A context menu is the menu displayed when right clicking on an applicable button or field.

# Campaigns

This is the primary tab for Dungeon Masters running the game.

## Campaign List

### Information Tab

**Weather**
The weather system to be used for Gameplay.

**Calendar**
The calendar system to be used for Gameplay.

**Start Time**
The time (in minutes) of the campaign start date / time. The smallest increment for updating time under the Gameplay is five minutes, so it is recommended to choose a time that ends in zero or five.

**Current Time**
The time (in minutes) of the campaign's current date / time.

### Gameplay

**Add Creatures**
Opens a dialog window and allows the user to select validated creatures to add as combatants. *(see Multi-Object Selection Window)*

**Add Improvised Creature**
Opens a dialog window that allows the DM to input basic stats for an improvised creature to be used in combat. *(see Improvised Creature Dialog)*

**Add Pack**
Opens a dialog window and allows the user to select a pack of creatures and NPCs to add as combatants.

**Add Players**
Opens a dialog window and allows the user to select player characters from a list to be added to the combat tracker. *(see Multi-Object Selection Window)*

**Add NPCs**
Opens a dialog window and allows the user to select NPCs to add as combatants. Only NPC entries who have a Base Creature selected will appear in the list. *(see Multi-Object Selection Window)*

**Roll Initiatives**
Rolls initiatives for creatures and NPCs with no initiative value, and then sorts them.

**Force Re-roll**
Forces a re-roll of all creatures' and NPCs' initiatives.

**Resort by Initiative**
Sorts the combatants by their initiative. Creatures marked as OOC (out of combat) or who have zero hit points remaining are sorted to the end.

**Rest NPCs**
Resets the hit points and spell slots of Ally NPCs.

**Clear All**
Clears all creatures from the combat tracker.

**Clear the Dead**
Clears all creatures at zero hit points.

**Kill Enemies**
Reduces the hit points of all Enemy creatures to zero.

**Loot the Dead**
Rolls the loot tables of enemy creatures at zero hit points and displays the result in the Event History.

**Loot and Remove**
Rolls loot then removes dead creatures.

**Group Save**
Opens a dialog window that allows the user handle an attack that will target multiple combatants. *(see Encounter Multi-Target Window)*

**Roll Dice**
Rolls a preset dice and displays the result.

**Flip Coin**
Flips a coin and displays the result.

**Fall Damage**
Calculates and rolls the fall damage for a creature based on the height (in feet) from which they fell.

**Custom Roll**
Performs a custom roll based on the numbers entered.

**Time Change**
A timer to keep track of the in-game time and increment the time as needed. Every four hours that the time increments also updates the weather value.

## Event History

Shows a history of messages generated by various actions in the Gameplay tab.

### ✎ Clear History

Clears the entire history log.

### ✎ 🗒 Clear After 10/50

Clears all messages past the latest 10 or 50.

## Timestamps

Track event times, such as a party's last long rest, or a magic item that triggers daily, or an event of note.

### 🕐 Update Timestamp

Updates the timestamp to the current day/time.

### 🖥 Round Counter

Tracks the current round of combat for the encounter.

### ◀👤 👤▶ Previous / Next Combatant

Changes the Active Combatant to the prior / next one in initiative, incrementing or decrementing the round counter if needed. This will skip over creatures who are at zero hit points or are marked as out of combat. If no creature is currently marked as the Active Combatant, it will Reset Combat.

### ↻ Reset Combat

Resets the round counter and selects the first valid creature in the initiative as the Active Combatant.

## Combatants

### *Base Information*

#### Portrait

The application will auto-search the creature image directory for a PNG, JPG, or GIF file name that matches the name of the creature to display.

#### Portrait 🗒 Remove Player / Creature

Removes this creature from the tracker.

#### Portrait 🗒 Toggle Enemy / Ally

Changes whether the creature is an enemy or an ally.

#### Portrait 🗒 Toggle OOC

Changes the out-of-combat status for a creature.

#### Portrait 🗒 Mark / Unmark as NPC

Changes whether the creature is an NPC, also changing where the portrait image is retrieved from.

## Display Name

The editable name of the player character or creature. The base name is retained for other features.

### *Status Indicators*

Status indicators give a shorthand way of saying that a creature has certain information that may be pertinent for the user.

#### 🔷 Has a Damage Vulnerability

#### 🔷 Has a Damage Resistance

#### 🔷 Has a Damage Immunity

#### 🔷 Has a Condition Immunity

#### 🔷 Is Concentrating on Spell

#### 🔷 Has an Active Effect

#### 🔷 Has an Active Condition

### *Base Stats*

#### 🛡 Armor Class

Creature / player's armor class value.

#### 👣 Speed

The speed value for the creature.

#### 👁 Passive Perception

The passive perception of the creature / player.

#### 🔵 Spell Save DC

The player's spell save DC.

#### ⇛ Initiative

The player's initiative value.

### *Actions and Tools*

#### ❤ Hit Points

The creature's current hit points out of their maximum. Opening this dropdown shows various buttons to adjust the health.

#### ⚔ Attacks

Displays the list of creature attacks available. Context menu gives options to use advantage or disadvantage.

#### 🔮 Spells and Active Effects

Displays the list of creature spells, active effects, and available spell slots.

## Skill Checks
Opens the list of skills that a creature can roll.

## Attribute Check
Opens the list of attributes that a creature can roll.

## Saving Throws
Opens the list of saving throws that a creature can roll.

## Roll Loot
Rolls the loot table for this creature. Each creature can only be looted once.

## Conditions
Shows the conditions that a creature could be under.

## Notes
Text field for taking miscellaneous notes.

# Notes
## Add Root Note
Adds a base level note to the tree view.

## Auto-Sort Notes
Automatically sorts the notes and sub notes.

## Paste Note
Pastes a copied note (if available) as a root note.

## Search Notes
Opens the Note Search dialog. *(see Note Search Window)*

**Tree View Item – Context Menu**
Add Sub Note – Adds a sub note to this note.
Delete Note – Deletes this note and its sub notes.
Copy Note – Copies this note and its sub notes.
Paste Note – Pastes the copied note as a sub note.

# Note Information
## Attach File
Opens the file explorer. A copy of the selected file is moved to the NoteAttachments folder. If a file of the same name already exists, the user will be prompted to overwrite or link existing file to this note.

## Open Attachment
Opens the attached file in the default application on the user's computer for the file type.

## Remove Attachment
Unlinks the file from the note and prompts to delete the file from the NoteAttachments directory.

## Add Sub Note
Adds a sub note to the current note, then makes the newly created sub note the currently viewed note.

## Delete Note
Deletes the note currently being viewed.

# Players
This is a list of CreatureModel data objects pre-marked as players to simplify party setup for DM usage.

## Sync Player Data
Any changes made to player information will be synced to the Gameplay tab.

# NPCs
Allows the user to create a list of mappings for a named NPC and the creature that their stats are based off of.

## Sync NPC Data
Any changes made to NPC descriptions will be synced to the Gameplay tab.

**Based On**
The creature that this NPC is based on for combat stats.

## Select Creature
Opens a dialog window to allow the user to select a single creature which will act as the base for this NPC. Changes to the base creature are only reflected if the NPC is re-added to combat.

**Is Friendly?**
Indicates whether or not the NPC is friendly to the party by default.

# Packs
Allows the user to create preset groups of creatures to be added to encounters.

**Is Ally**
Indicates that the group is friendly and will be marked as allies when added to combat.

# Creatures and NPCs
The list of creatures and NPCs that are added with this pack.

# Creature Builder

## Base and Combat

### Base Information

**Portrait**
Displays a portrait of the creature if available in the Images directory.

**Miniature Data**
DM field to indicate if they have a miniature for a creature, the quantity, and location (labeled bin).

**Challenge Rating**
The challenge rating of the creature. This sets the proficiency bonus.

**Languages**
The spoken or understood languages of the creature.

**Environments**
Environments in which the creature can be found.

### Vitality and Defense

**Hit Points**
The dice used to roll for the creature's health when they are added to combat, along with the displayed average.

**AC**
The armor class and type for the creature.

**Movement**
The various movement speeds for the creature.
- 👣 Walking Speed
- 🐟 Swimming Speed
- 🪶 Flying Speed
- ⛰️ Climbing Speed
- 🟫 Burrow Speed

**Senses**
The various creature vision ranges.
- 🟢 Passive Perception (auto-calculated)
- 👁️ Darkvision
- 🐾 Truesight
- ⊗ Blindsight
- 〰️ Tremorsense

**Proficiency Bonus (Calculated)**
The creature's proficiency bonus.

**Damage Type Proclivities**
The various damage types and how a creature relates to them in regards to vulnerability, resistance, or immunity.

**Condition Immunities**
Various conditions and whether or not the creature is immune to the effect.

## Attacks / Abilities
See *Custom Ability* section towards end of document.

## Counters
This is used to track various other resources used by a creature, such as Legendary Actions or Legendary Resistances.

## Attributes and Skills
This is where the creature's attribute scores, saving throws, and skill proficiencies are entered and marked.

## Features and Traits
This is where various traits such as Pack Tactics would be entered to display on the creatures info card.

## Spellcasting

**Spellcasting Attribute**
The attribute used to determine spellcasting values for the creature, which are generated from this selection.

**Is Innate Spellcaster?**
Indicates that this creature does not require spell slots in order to cast from their Spell List.

**Spell Slots**
The spell slots available to this creature at start.

### Spell List
The list of spells able to be cast by the creature.

## Loot

🟤 **Add Loot**
Opens a dialog window that allows the user to select an item to add to the creature's loot table.

✨ **Coin Drop**
The maximum value in copper of currency to drop.

🟫 **Roll Loot**
Performs a roll of the loot table for this creature, such as for testing purposes or looting a creature outside of combat (finding a corpse).

🟦 **Chance to Drop**
The chance to drop one of these items.

🔼 **Max Quantity**
The number of times to roll for this item.

# Item Builder

## Additional Information

**Is Magic?**
Indicates that this is a magic item.

## Ingredient Information

**Environment**
The environment in which the ingredient is found.

## Alcohol Information

**Volume Size**
The size of the original container of this alcohol.

**Drink Size**
The volume consumed during a Drink action from the player inventory.

**Alcohol Percentage**
Used to determine the DC of Constitution Saving Throw in order to increase player intoxication level.

## Fish Information

**Fishing Environment**
The environment in which this fish can be found.

**Difficult Catch?**
Indicates that the player will need to make a Strength Saving Throw if this fish catches on their line. Typically for heavier weight fish.

**Difficulty Class (DC)**
The DC of the saving throw for a difficult catch fish.

## Weapon Information

The weapons damage, hit bonus (if magic), and applicable traits such as Finesse or Versatile.

Note: 1 or 2 hand wielding not enforced my application to allow flexibility of weapon usage at DM discretion.

## Armor Information

The armor's base AC, strength requirement, and if it invokes disadvantage on stealth checks.

## Crafting and Dismantle

Item types Rune, Resource, and Ingredient are not allowed to be crafted as they are used for crafting and this prevents a circular dependency.

**Toolkit Required**
The tool used to craft or dismantle the item.

**Is Craftable**
Indicates that this item is able to be crafted.

**Crafting Difficulty**
Potions only. DC of successfully brewing the potion.

**Quantity Crafted**
The quantity of items created, such as for ammo.

**Can Dismantle**
Indicates that this item is able to be dismantled for other resources.

## Crafting Components

**Add Crafting Component**
Opens a dialog window that allows the user to select crafting components. *(see Multi-Object Selection Window)*

## Acquired Components

**Add Acquired Component**
Opens a dialog window that allows the user to select acquired components, restricted to Resource type items. *(see Multi-Object Selection Window)*

## Magic Info

**Requires Attunement?**
Indicates that this magic item requires attunement by the character in order to use.

**Stat Changes**
A list of stat bonuses that the character obtains while equipped with this item (and attuned if necessary).

## Enchanting Information

**Creatable Through Enchanting?**
Indicates that this item is creatable through the enchanting process.

**Select Base Item**
Opens a dialog allowing the user to select an item that the player must have as a base for enchanting.

## Required Runes

**Add Enchanting Rune**
Opens a dialog allowing the user to select the type/quantity of runes required to perform the enchanting.

**Quantity Required**
The quantity of the runes needed.

# Spell Builder

## Basic Information

**Classes**
The classes that are able to utilize this spell.

## Casting Information

**Consumes Materials**
Indicates that a spell consumes materials upon casting and provides a list for items to be added.

## Spell Abilities

See *Custom Ability* section towards the end of the document for more information.

Primary abilities are the abilities than can be performed as part of the base spell cast.

Secondary abilities are meant to be Active Effects created by spells (such as the lightning strike during Call Lightning's duration).

# Character Builder

The character builder is used to set the data for a player character and utilize them in game play.

### Show / Hide Section
The character builder screen has some vertical toggle buttons that will display or hide certain sections from view.

### Add Character
Opens the Character Creator window.

### Import Characters
If a duplicate character name is found, the user will be prompted to overwrite the existing one or not.

If GAMMA determines if you are importing from another install based on the directory naming, it will attempt to import the NoteAttachments folder as well.

### Character List Context Menu
- Delete Character: deletes this character
- Export Character: prompts for a save location for an XML file for this single character

## Character Header
### Switch to Previous Character
If more than one character has been viewed, this button will appear and allow the user to toggle to the prior character. If linked to Roll20, it will also attempt to update the Speaking As dropdown in Roll20.

### Character Health
Indicates a character's remaining hit points and a shorthand status for roleplay.

Fine: 76% - 100%    Bruised: 51% - 75%
Bloodied: 26% - 50%    Wounded: 1%-25%
Dead: 0%

### Character Hit Points and Dice
Displays the character's details regarding current and max hit points, temp hit points, and hit dice sets.

### Adjust Health
Changes to the character's current health.

### Add Hit Dice Set
Adds an entry for character hit dice.

### Roll Hit Die
Rolls a hit die from the set.

### Roll Hit Die > Right-Click – Roll to…
These options allow you to roll to a certain threshold for hit points automatically. Roll to Near Max will roll enough to reach within a single hit die of maximum, so that the player can decide whether or not it is worth a roll to try to top off their hit points.

### Action History
A text history of the character's actions during play.

### Link / Unlink to Roll20
Indicates that actions, spells, and attacks that appear in the Action History will also attempt to be replicated in the linked Chrome window opened to Roll20 (see Settings for more details).

### Clear History
Clears the action history. Context menu allows for limited scope deletion of messages.

## Information
### Edit Character
Creates a copy of the current character and opens the character creator for editing.

## Attributes and Skills (Stats)
### Attributes and Skills
The character's attribute scores, saving throws, and skill proficiencies, as well as a handful of other stats used by the application or user.

## Combat
### Actions
### Skill Checks

### Abilities Checks

### Saving Throws

### Standard Actions

### Roll Initiative

### Other Rolls
Provides preset dice rolls, a coin flip, or entries for custom rolls.

### Rest…
Allows the player to perform a long or short rest, resetting various applicable Counters and Hit Point / Dice / Spell slots for the character.

## Tool Check

Allows the player to make skill checks with a tool which applies their proficiency automatically if this tool is listed in their proficiencies. Context menu allows for rolling with advantage / disadvantage.

## Roll Tables

Allows the player to roll from a Roll Table in the Tools section that are marked as Available to Players.

## Attacks / Abilities

See *Custom Ability* section towards document end.

## Counters

**Reset on Long Rest**
Indicates that upon performing a long rest, the current value will reset to the maximum.

**Reset on Short Rest**
Indicates that upon performing a short rest, the current value to will reset to the maximum.

## Alterants

Alterants are modifiers for the character that are able to be toggled on and off, for example a Barbarian's Rage. Alterants can affect base skill and stat values, or be used for ability conditions (read if active or not).

### Active Indicator

Indicates whether the alterant is active (green) on the character.

**Stat Changes**
The stats affected by the alterant being active and the value to which they are raised / lowered.

## Miscellaneous
### Death Saving Throws

Indicates how many passes or fails for death saving throws a character has currently. Checkboxes can be checked manually, or automatically after rolling.

## Conditions

Displays the various conditions that a character could be affected by, along with a hover-triggered info card.

## Minions
### Group Save

Opens a dialog window that allows the user to enter information indicating a large-scale attack that will target multiple minions. *(see Encounter Multi-Target Window)*

## Minion Cards

Similar to the cards used in the campaigns section, these allow for the player to view stats and information for a creature, as well as make attacks, skill checks, and saving throws.

## Traits

A list of traits for the character, either added automatically by the character creator or manually by the player.

## Spellcasting
### Spellcasting Information

**Spellcasting Ability**
The character ability used to determine spellcasting save DC and attack modifier.

### Spell Slots

The current and maximum spell slots available for each level of spell.

### Miscellaneous
#### Long Rest

Performs a long rest, resetting the current health, current hit dice, applicable counters, and spell slots for a character.

**Is Concentrating**
Indicates that a character is currently concentrating on a spell.

### Spells

**Prepared**
Indicates that a spell has been prepared for use.

**Icon, Level, and Name**
Displays the icon related to the school of magic for the spell, its base level, and the name.

#### Cast Spell

Casts the spell at its base level if an appropriate spell slot is available.

Context Menu – Cast at Level N
Allows for the casting of spells at higher levels if they are able and does so if an appropriate spell slot is available.

Context Menu – Cast as Ritual
If a spell is Ritual Casting capable, this option will appear, allowing the character to cast the spell at its base level without the use of a spell slot.

## Active Effects

Active effects created by spells are automatically added to this list and show the level at which they were cast. Hovering over the name of the effect will display additional information. Active effects dependent on concentration will automatically be removed if a new concentration spell is cast or if the Is Concentrating checkbox is cleared.

### 🌀 Use Active Effect

Rolls dice for the active effect if applicable.

## Inventory and Crafting

### Equipment

This section displays a character's equipped items for their hands, armor, and accessories, along with the magic items they are currently attuned to.

### Inventory

This section can contain up to six inventory tabs. Adding a new inventory is done by right-clicking in the inventory section and selecting the add option.

**Is Carried**
Indicates that this inventory page counts towards the character's carried weight.

### ❌ Delete Inventory

Permanently removes this inventory and its contained items from the character. The first inventory tab is unable to be deleted since other functionality requires at least one inventory tab to be used.

### 👥 Add Currency

Opens a dialog window to add currency to this inventory.

### 👤 Subtract Currency

Opens a dialog window to subtract currency from this inventory.

### 👥 Transfer Currency

Opens a dialog window that allows the player to transfer currency from current inventory into another.

### 🪙 Inventory Value

Shows the total value of items in this inventory page, along with the shop sale value.

### ➕🗒 Add Custom Item

Adds a new item to the character's inventory with default values set.

### ➕🗒 Add From Text

Opens a window to enter text for a bulk item add.

### 🔄 Transfer Items

Opens the Transfer Items dialog window to facilitate rapid item transfer. *(See Item Transfer Dialogue)*

### 🏠 Open Shop

Displays a list of shops *(see Shop Window)*

### *Active Item*

**ABV (Alcohol Only)**
The alcohol-by-volume rating of the alcohol.

**Volume**
The volume remaining in the container, rated in gills.

### 🔄 Transfer to…

Opens a dialog window allowing the user to move this item to another page.

### 🍺 Take a Drink

Takes a drink from the alcohol, rolling a Constitution Saving Throw automatically and increasing intoxication level condition as necessary. If the drink reduces the volume at or below zero, it will take the remaining volume out of the next quantity for that item. If the quantity becomes zero the item is removed from the player's backpack. There's a right-click action to pour out a drink, decrementing your volume but not rolling.

### ✋ Equip Item

Equips the item to the indicated slot on the button. Items that have stat changes will apply those benefits to the character upon equipping. If it is a magic item that requires attunement, it will check that the attunement slots contain that item as well before applying the benefits.

### ⚗ Dismantle Item

Dismantles one of the items and adds the acquired components to the player's inventory.

### ❌ Remove Item

Removes all of that item from the current inventory.

## Crafting

### 🔨 Craft New Item

Opens a dialog containing all non-potion items marked as craftable. The character's backpack will be checked for sufficient materials in order to craft. If all available, the quantities of items needed will be deducted from the backpack. Items that go to zero quantity will retain an entry on the backpack tab.

### *In Progress Items*

**Progress Bar**

Displays the progress to completion of crafting.

### 🔨 Crafting Menu

Opens a list of crafting times, dictating how many crafting rolls will be added to the progress towards completion, at 1 roll per hour.

## Enchanting

### 🪄 Enchant New Item

Opens a dialog of magic items that have been marked as enchantable. Player inventory will be checked for the Imbuing Lens tool and the runes required.

### *Enchantments in Progress*

The item cards will display the item name, progress bar, and action buttons.

### 🖐 Imbue Magic

Opens a dropdown menu displaying a list of spell level slots. The character will be checked to ensure they still possess an Imbuing Lens tool and have an available spell slot.

## Animal Taming

### 🐸 Add Creature to Tame

This will open a dialog displaying creatures that match the following criteria:
- Is a validated non-player
- Is a Beast of non-evil alignment

### *Creature Pen*

This list contains the creatures that are currently in the process of being tamed and displays their name, progress, and associated actions.

### 🧌👹 Taming Progress

A fully tamed creature will be added to minions, and a failed creature will become hostile. A creature is added to the creature pen at 40%, with the max value to be achieved being the creature's experience value.

## 🐺 Train

Rolls for a session of training, which can be made with advantage / disadvantage at DM discretion.

### ❌ Remove from Pen

Removes the creature from the training pen.

## Alchemy

### *Alchemy / Brewing*

### 🧪 Brew Potion

Opens a dialog window with a dropdown list containing potions that have been designated as craft-able. Upon selection, it will check that the character's backpack contains the materials in order to craft the item. Upon failure, it will display a notification that the character is missing items. Upon success, the items needed will be deducted from the backpack and a crafting attempt will be made. Upon success, the potion is added to the character backpack. Upon failure, the ingredients are still consumed but no potion is added to the character.

### *Herbalism / Gathering*

**Environment**

The environment in which the character is searching.

### 🔍 Find Ingredients

Rolls to find ingredients in the selected environment. It first rolls to determine the number of ingredients found, then rolls to determine which ingredient is found each time.

**Gathering Result**

Displays the results of the gathering attempt. All displayed ingredients found are added to the character's backpack.

## Fishing

**Environment**

The environment in which the player is fishing.

**Fishing Bonus**

Any bonus to the roll for fishing. Proficiency with the Fishing Tackle toolkit is already accounted for, so this bonus would be from magical abilities or DM discretion.

## Go Fishing

Rolls a d20 + Tool Proficiency (Fishing Tackle) + Fishing Bonus, the result determines the rarity of the fish that is caught in the selected environment. If the fish is marked as a Difficult Catch the character will automatically make a Strength Saving Throw to attempt to catch the fish or object found. Items caught via fishing are automatically added to the character's backpack.

The character's backpack inventory will be checked for a Fishing Tackle tool available, and if not will prompt the user on whether or not to fish anyway, the assumption being that a yes means they are borrowing equipment from another player or NPC, not just fishing with their hands.

## Notes

### Add Root Note

Adds a base level note to the tree view.

### Auto-Sort Notes

Automatically sorts the notes and sub notes.

### Paste Note

Pastes a copied note (if available) as a root note.

### Search Notes

Opens the Note Search dialog. *(see Note Search Window)*

### Tree View Item – Context Menu

Add Sub Note – Adds a sub note to this note.
Delete Note – Deletes this note and its sub notes.
Copy Note – Copies this note and its sub notes.
Paste Note – Pastes the copied note as a sub note.

## Note Information

### Attach File

Opens a file explorer window so that the user can select a file to attach to the note. A copy of the file is moved to the NoteAttachments folder. If a file of the same name already exists, the user will be prompted to overwrite the file and whether to link existing file to this note.

### Open Attachment

Opens the attached file in the default application on the user's computer for the file type.

## Remove Attachment

Unlinks the file from the note and prompts the user if they want to delete the file from the NoteAttachments directory in Gamma.

### Add Sub Note

Adds a sub note to the current note, then makes the newly created sub note the currently viewed note.

### Delete Note

Deletes the note currently being viewed.

# Audio

## Music

### ▶ Play Music

Plays the currently chosen music. On application startup the play function is automatically started so that as soon as an item is selected it will begin to play.

### ⏸ Pause Music

Pauses the music audio track.

### ⏺ Stop Music

Stops the music and resets to the start of the track.

### ♪ Audio Files

Each .wav and .mp3 audio file found in the Audio/Music sub-directories of Gamma at startup will display here in alphanumerical order and grouped by folder name. Audio files in the root Music directory are ignored.

## SFX – Sound Effects

### ▶ Play Sound Effect

Plays the currently chosen sound effect. On application startup the play function is automatically started so that as soon as an item is selected it will begin to play.

### ⏸ Pause Sound Effect

Pauses the sound effect audio track.

### ⏺ Stop Sound Effect

Stops the sound effect and resets to the start of the track.

### ♪ Audio Files

Each .wav and .mp3 audio file found in the Audio/Sfx sub-directories of Gamma at startup will display here in alphanumerical order and grouped by folder name. Audio files in the root Sfx directory are ignored.

# Other Tools

## Reports

### Creature Sources Report
Provides the total count of creatures, validated count, and the count per unique Source value entered for creatures.

### Fish Counts Report
Shows the fish per environment and rarity available in the Item Builder data.

### Shop Coverage Report
Shows a list of item types that are not covered by any of the shops.

### Spell Report
Shows a report of the following Spell information:
- Spell counts by School of Magic and Level
- Spells marked as validated but no classes

### Custom Ability Report
Shows a report of the following Ability information:
- Abilities with Quantity to Perform = 0
- Ability with PreActions with invalid Target names

## Shops

### Item Types Handled
Each item type checked indicates that the shop can buy / sell this type of item.

## Treasure Chests / Loot Boxes

### Loot Box Information
**Coinage (Range)**
The minimum and maximum currency to be rolled from the loot box.

### Loot Box Items
**Drop Chance**
The chance for one of these items to drop.

**Max Quantity**
The number of times this item is rolled for.

**Roll for Loot**
Rolls for currency and items, then displays the results.

## Image Scaler
Allows the user to scale an image to determine visibility at altered resolutions. Primarily just an offshoot utility that does not impact other components of Gamma.

## Roll Tables
Series of tables that allow for rolling for different outcomes.

### Roll Table
**Has Modifier**
Indicates that there is a modifier for the table. When the table is rolled, a user will be prompted for the modifier.

**Modifier Description**
Described the modifier used for this roll table.

**Available to Players**
Indicates that the table will display in the roll tables dropdown on the character combat screen.

**Test Roll**
Performs a roll on the table and displays the result. The roll range is automatically determined by the lowest LowValue and the highest HighValue among the rows.

## Sourcebooks
The source material that other data items are from, such as official Wizards of the Coast materials or homebrew.

**Preserve?**
Indicates that when the SRD data cleanup is performed, items with this sourcebook value are preserved.

## Note Types
Configurable note types for use in campaigns and player journals.

**Sort Sub Notes?**
Indicates that when a user clicks the sort button for a notes section, the sub notes are sorted as well.

## Languages
**Typical Speakers**
Creature(s) that would typically speak this language.

**Script**
Written script the language would resemble.

**Dialects**
Sublanguages that fall under this language as a dialect.

## Player Classes

### Active Player Class

*Features*
*[See Player Building Block Features]*

*Equipment*
**Equipment Choices**
Shows the equipment choices granted by the class.

*Spellcasting*
**Has Spellcasting**
Indicates that this class grants spellcasting.

**Spellcasting Ability**
The ability used to determine spellcasting DC and attack modifier.

**Spells Known per Level**
Options of Set or Any, to determine if the class has a set number of spells known per level or if they are all known and only subsets can be prepared.

**Spell Slot Table**
Table showing the Cantrips Known, Spells Known, and Spell Slots per Spell Level for the class levels.

## Player Subclasses

🔀 **Context Menu – Sort by Subclass Of**
Sorts the player subclass list alphabetically by the Subclass Of value, then by name.

### Active Player Subclass
**Subclass Of**
Indicates which class this is a subclass for.

*Features*
*[See Player Building Block Features]*

*Spellcasting*
**Has Spellcasting**
Indicates that this subclass grants spellcasting.

**Spellcasting Ability**
The ability used to determine spellcasting DC and attack modifier.

**Spells Known per Level**
Options of Set or Any, to determine if the subclass has a set number of spells known per level or if they are all known and only subsets can be prepared.

**Spell Slot Table**
Table showing the Cantrips Known, Spells Known, and Spell Slots per Spell Level for the class levels.

## Player Races

### Active Player Race

*Features*
*[See Player Building Block Features]*

## Player Subraces

🔀 **Sort Player Subraces**
Sorts the player subrace list alphanumerically.

**Context Menu – Sort by Subrace Of**
Sorts the player subrace list alphabetically by the Subrace Of value, then by name.

### Active Player Subrace

*Features*
*See Player Building Block Features*

## Player Backgrounds

### Active Player Background
*Features*
*[See Player Building Block Features]*

*Equipment*
**Gold Pieces**
The number of gold pieces given by this background.

**Set Equipment**
The items and quantities given by this background.

**Equipment Choices**
The items the player must make a choice from when selecting this background.

## Player Feats

### Active Player Feat
*Features*
*[See Player Building Block Features]*

## Eldritch Invocations
Collection of Eldritch Invocations available to Warlocks in character creation.

## Weather Climates

### Active Weather Climate

**Weather Entries**

A preset list of weather entries and value ranges from one to one-hundred. A new weather entry will have these values auto-filled to the default weather system.

## Game Calendars

### Active Game Calendar

**Weeks Per Month**

The number of weeks in a month.

**Use Eras?**

Indicates that the years should be displayed in an era notation (3E456).

**Years Per Era**

The number of years until another era is incremented.

**Days**

The list of days in a week.

**Months**

The list of months in a year.

# Settings

Settings are loaded from the Settings.xml file upon startup and saved upon exiting the application.

## Application Settings

Settings to indicate if certain aspects of the application should be displayed for use.

## Autosave Settings

Settings to indicate if the autosave should trigger for a section. Autosave occurs every 5 minutes from application startup.

## Exitsave Settings

Settings to indicate if the application should save marked sections upon application close.

## Gameplay Settings

Settings that affect various aspects of how GAMMA works in regards to rules preferences by the DM or display preferences for the user.

## Audio Settings

The system sound volume level and whether certain core SFX are to be played.

## Data

**Import GAMMA Data**

This will attempt to import all data from a prior GAMMA application, including Images, Audio, and NoteAttachments. Clicking this opens a folder selection dialog, select either the old GAMMA folder or the Data folder within to import (GAMMA recommended to get the other files as well, not just data XMLs). The application will attempt to merge this data with the current saved GAMMA data, unsaved changes will be discarded.

**SRD and PT Release Cleanup**

Removes data and folders from GAMMA in order to prep the application for public release.

**Set Default Settings**

This will convert all settings to the developer designated default values.

## WebDriver Settings

**Open Roll20**

Uses the Selenium WebDriver and chromedriver.exe in order to open a web page that GAMMA can interact with for player outputs.

The chromedriver.exe executable only works for a single version of Google Chrome, so if there is a mismatch, a new chromedriver.exe or Google Chrome will need to be installed / updated.

GAMMA will attempt to automatically log the user into Roll20 if credentials and game info are provided.

**Reset WebDriver**

Performs the Quit function of the web driver.

**Get WebDriver**

Opens your default web browser to the web page to acquire a new release of chromedriver.exe if needed. Copy the new executable over the current one in GAMMA's directory.

**Roll20 Email and Password**

When opening to Roll20 with the WebDriver it will attempt to user these entered values to automatically log you in. **WARNING:** these items are stored as plain text in the settings ini file. It is heavily recommended that you use a password that is not shared with other accounts, or that you mark it to clear on close.

## Game / Character Selection

**Selection Checkbox**

Indicates that this is the game / character combo to attempt to access when Roll20 is opened.

**Game Name**

The name of the Roll20 game to access.

**Character**

The name of the character to set for Speaking As.

## About GAMMA

**Visit on Patreon**

Opens a web page to
https://www.patreon.com/gammatoolkit

**Visit on Reddit**

Opens a web page to
https://www.reddit.com/r/GammaToolkit

# Other Windows and Dialogs

## Shop
The shop window allows the player to barter with items and currency to sell or buy supplies. Certain shop types only deal with certain item types.

### General Information
**✅ Confirm Purchase**
Executes the current transaction as long as the player is able to pay for the items purchased if applicable. Purchased items are automatically added to the player's inventory.

### Backpack List
The backpack list shows items that the character has in their backpack that this vendor is willing to purchase.

**🔹 Offer for Sale**
Places 1 of the item in the Items to be Sold list. Context menu allows for higher quantities to be sold.

### Items to be Sold List
This list shows items that are currently being offered for sale by the player to the vendor at 60% of their base value.

**❌ Retract Item**
Works in the reverse order of Offer for Sale.

### Items to be Bought List
This list shows items that are currently being considered for purchase from the vendor at 100% of their base value.

### Shop Items List
This list shows items being offered by the shop for purchase. Their quantity in the shop screen is unlimited, although you may want to discuss with your game master before buying larger quantities of certain items.

**🔹 Purchase Item – Context Menu**
Alcohol type items will also have a drink option in the context menu, enabling a character to take a drink (at no cost) without having to add the alcohol to their inventory first.

## Multi-Object Selection
Displays a list of objects for selection. The type displayed will be dependent on where this dialog is opened from to contain creatures, spells, items, etc.

*Special Case – Player Selection*
When selecting players for an encounter, only a single quantity of each can be added.

**🔍 Search Objects**
Text entered here will filter down the displayed list of Source Objects.

**🧽 Clear Search Text**
Clears the search and re-displays all available objects.

## Encounter Multi-Target

### Base Information
**Save Ability**
The type of saving throw to be made by a target creature.

**Save Difficulty Class (DC)**
The difficulty value of the saving throw that a creature must match or exceed to pass.

**Effect Type**
*Attack*
Displays the fields for entering damage values.

*Other*
Displays no additional fields.

### *Attack Type Fields*
**Half on Save?**
Indicates that even a creature that passes will take half of the damage, rounded down.

**Magic Weapon?**
The attack is magical.

**Adamantine Weapon?**
The attack is an adamantine weapon.

**Silvered Weapon?**
The attack is a silvered weapon.

**Condition on Fail**
Indicates that a creature who fails will have this condition marked as true unless immune to that condition. If "Special" is selected, an additional text field will display. The contents entered in this text field will be added to a creature's Notes upon fail.

## Target Information

**Target Name**

The name of the target. Targets are listed alphanumerically instead of by their initiative order so that they are easier to find.

**Adv**

Indicates that this creature is making their save with advantage.

**Dis**

Indicates that this creature is making their save with disadvantage.

**Reset Target Selections**

Unchecks all targets and their Adv / Dis selections in the list.

## Note Search

**Search Text**

Text to search for in the notes.

**Use Case Match**

Whether or not to match the casing of the Search Text.

**Look in Header**

Search the note's header for a text match.

**Look in Content**

Search the note's content for a text match.

**Search**

Performs a search on the associated notes section. Matching notes display an icon to indicate they are a match. All notes are collapsed aside from what is needed to display found matches.

## Item Transfer

At least two inventory tabs must exist for a character in order for the Item Transfer dialogue to be opened. All changes are saved upon close.

**Inventory 1 / 2**

These are which inventory tab is displayed in the list. If you attempt to select the same for both tabs, it will flip the other to a different tab.

**Transfer Item**

Transfers 1 quantity of this item to the other list, creating a new entry if applicable or just incrementing the quantity. If the source quantity drops to zero the line is removed.

**Done**

Saves the changes to the inventory and returns to the main window.

## Improvised Creature Dialog

This window allows you to set basic stats for a creature to be used in a combat encounter. You can set the name, base stats, and a single attack, along with the number of this creature to be added.

Creatures that require additional stats or complex attacks and abilities should be made through the normal Creature Builder tab.

# Additional Functionality

## Player Building Block Features

### ✚ Add Feature
Adds a new feature to the list.

### ⇵ Sort Features
Sorts the features in the list by level, then name, giving precedence to certain suggested names, such as grouping Ability Score Improvement items.

### Name
The name of this feature.

### Level
The class level or total level (in instance of race features) at which this feature is available for the character.

### Type
The type of feature that this is. This selection will determine additional fields that display.

### Choices Allowed (type dependent)
Determines the number of choices the user can make from a set or preset list determined by the type.

### Details (type dependent)
Details or description of the feature, such as for a single trait like Uncanny Dodge.

### Choices / Set Items (type dependent)
Allows the user to set a list of set items or a list of items to choose from, depending on the feature type selected, as well as the quantity for that choice if applicable.

If any choices or set items have been selected for the list, changing the type will clear the list.

### [Bracketed Values]
While selecting choices for various features, you will sometimes see items that are within brackets, these are values that in some instances will be translated into other values / choices, for example selecting [Exotic Languages] for language proficiencies will produce the list of all languages marked as Exotic during character creation to choose from.

# Feature Types

### [Item] Proficiencies – Choice / Set
Allows the character to select from a choice of items to be proficient in, such as skills, tools, or languages, or have a set list assigned to them. Multiclass variants are assigned when the class is not the primary on a character.

### Ability Score Improvement
Indicates that this is a level in which the character is able to make a selection between two ability score improvements or the selection of an additional feat.

### Additional Feat
Indicate a number of additional feats able to be added to the character.

### Additional Known Cantrips
Indicate how many cantrips of which spellcasting classes you are able to know in addition to the spellcasting table.

### Eldritch Invocations Known
Allows the character to select from the Eldritch Invocations list.

### Expanded Spell List (Class)
Adds a set list of spells to the normally allowed list of spells available for that class for selection.

### Extra Known Spells – Set
Adds a list of known spells that do not count against the Known Spells limit of the class's spellcasting table.

### Extra Spells Known – Choice (Any)
The number of spells that the character can also choose to know from the entire spell list.

### Extra Spells Known – Choice (Class)
The number of spells that the character can also choose to know that is available to their class.

### Multiclass Ability Prerequisite – And
Indicates that this class requires that all listed ability score thresholds be met in order to be a secondary class.

### Multiclass Ability Prerequisite – Or
Indicates that this class requires at least one of the listed ability score thresholds be met to use this as a secondary class.

**Saving Throws – Set**
The abilities to be marked as being proficient in saving throws.

**Skill Expertise – Choice**
The number of skills allowed to be marked as an expert in.

**Stat Bonuses – Choice / Set**
Additional bonuses to ability scores, skills, or specialty stats like additional hit points per level that some races provide.

**Trait**
A single trait.

**Traits – Choice**
Allows the character to select up to a limit from a provided list of traits with names and descriptions, such as a Paladin's Fighting Style.

## Custom Ability Form
**Use Ability Button**
The icon for this button is based on the ability Type selected and while available wherever this form is displayed is not usable in all locations.

**Tt Type**
The type of ability.

**Tt Quantity**
The number of times the ability is repeated, used for spells such as Magic Missile or Scorching Ray.

**Tt Scales?**
Used for spell abilities, scales with the level that the character casts it at.

**Tt Rate**
The rate at which the quantity scales.

**Tt Description**
A description of the ability that shows in a tooltip.

## Variables
Variables are the stored data values tracked while an ability is being processed.

**Tt Type**
The type of variable.
Number – a numerical value such as a dice roll
Text – a text value to provide additional info
Toggled Option – true / false value

**Include Half?**
For number types, also outputs a half value, typically used for spells that deal half damage on a successful saving throw.

**Output?**
Indicates that this variable should output as an additional line when processing. It will display the final numerical result and the roll if enabled in the settings.

## Pre-Output Actions
Pre-output actions are the calculations made to update the variables for outputting.

**Move Up / Down**
Moves the action up or down in the list to correct any issues in execution order.

**Tt Header**
The custom header to be used to indicate what this action does. If blank, a generated header is displayed.

**Action**
The action to be performed. Certain variable types can only have certain actions performed. Users will be displayed warning messages when an ability fails to process due to a variable type / action mismatch.
Add Roll – adds a set dice roll
Add Set Value – adds a set value
Add Stat Value – adds a value from a character or creatures ability score or modifier
Add Calculated Value – adds a value after performing a calculation
QA Prompt – Provides fields to ask a question and store the response to a text variable, such as Animate Dead and asking Skeleton or Zombie
Make Attack Roll – makes an attack roll based on the selected ability, can be affected by Advantage / Disadvantage options
Numeric Value Prompt – asks the user for a numeric value
Translate Value – allows for a 2 column table to translate a source value of a variable to set as the target variable's value

**Conditions**
Conditions help restrict actions to only execute when meeting certain criteria.

If the variable to be checked is not found it will then check the alterants or try to process it as a raw value.

Any failure to do so will automatically mark as a failed condition. Preset [variables] always exist in an ability without having to be set up by a user.

## Output

A block of text to be outputted when the ability is processed. {Bracketed Text} can be included and will be swapped when able to a variable's value upon name match.

## Post-Output Actions

Post-output actions are special events that occur as the result of using an ability. Similar to pre-output actions, these can be dictated by condition matching. Each action may display additional fields if needed as well.

Activate Concentration – marks the character or creature as concentrating on a spell
Activate Alterant – marks an alterant as active if not already so
Add Minions – adds minions to the character's minions section
Add to Current HP – adds to the creature or characters current hit points
Add to Temporary HP – overwrites the character's temporary hit points if a higher value, since temporary hit points do not stack from multiple sources as per D&D rules.
Add Active Effect – adds a secondary ability from a spell to the character or creature's active effects list
Expend Counter – decrements the current value of a character or creature counter by the given amount. A pre-check is performed to verify that enough of that counter exists prior to ability processing
Subtract from Current HP – subtracts the amount from creature or character's current hit points

# Character Creator

## Name / Info

### Name and Character Information

**Character Name**
The name of the character.

**Height**
The height (in inches) of the character, used to calculate standard actions such as high jump.

**Weight**
The weight (in pounds) of the character, used to determine if your party can carry you away when you've had too much mead at the tavern.

**Alignment**
Your character's moral alignment.

**Backstory**
Your character's backstory prior to adventuring, edgy origins are optional.

**Personality Traits / Bonds / Ideals / Flaws**
What makes your character unique and shows us who they really are.

## Race / Class / Stats

### Race and Class Selection

**Race**
Your character's race.

**Subrace**
Your character's subrace (if applicable, will be populated based on race selection)

**Background**
Your character's background.

**Total Level**
Your character's total level based on class selection.

**Proficiency Bonus**
Your character's proficiency bonus based on their total level.

**Classes and Levels**
Your character's list of classes, levels in that class, and their selected subclass.

**➕ Add Class**
Adds a new entry to the Classes and Levels list.

**Class**
The character class.

**Level**
The number of levels the character has in this class.

**Subclass**
The subclass for this class. Although subclasses are assigned in the rules at different levels depending on the class, in GAMMA they are selected at level one, but additional bonuses / stats will not be granted until the appropriate level.

**✖ Remove Class**
Removes the class from the Classes and Levels list.

### Attribute Points
This section allows the user to use the Point Buy method of assigning ability scores to their character, as well as viewing the total scores and final modifiers at the end after accounting for racial or other bonuses.

### Attribute or Feat Selection
At certain levels for player classes, they get what is called the Ability Score Improvement feature, which allows for either the choice of ability scores to be added onto, or an additional feat to be selected if the DM is using the feat rule variant.

### Other Stat Selections
Allows the character to select from a choice of various stat bonuses, such as Variant Human being able to select two different ability scores to increase by one.

### Skills
The set skills for a character as well as any choices they can mark for proficiency. Duplicate skills cannot be marked.

### Expertise
Allows the character to mark skills as being expertise.

### Feats
Allows the character to mark feats from the list granted they have the points to do so. Feats are added to the character's traits upon completion.

### Other Proficiencies
The character's set and chosen weapon, armor, language, and tool proficiencies.

## Traits / Equipment

**About Equipment**

Starting equipment will only be added to a character's backpack the first time they complete character creation.

**Starting Gold**

The amount of gold pieces that the character begins with from their selected background.

### Equipment Choices

The equipment choices available to the character from their selected class and background. Clicking on the button for each row brings up the Multi-select window with all items listed. Characters are not limited strictly to the items in the choice in case they wish to substitute certain items at their DM's discretion.

### Chosen Equipment

Shows the list of equipment chosen.

### Granted Equipment

Mandatorily granted equipment from a character's background.

### Trait Choices

Allows the character to make a selection from various traits, such as a Paladin's Fighting Style or a Dragonborn's Draconic Ancestry.

### Set Traits

Set traits from other player character selections.

### Spellcasting

Shows the selection of spells and cantrips known. A limit is enforced for classes that have a set limit such as Ranger or Bard, but others who simply choose spells to prepare, such as Cleric, or those who have advanced rules, such as Wizard, will not have a limit and it will be up to the player and DM to determine the appropriate number of selections to make based on the character's level and implied experiences.

### ✅ **Finish Character**

Validates the character creation form, displaying any errors if found and preventing the user from moving on if critical issues are found. Some items will display a warning, these will not outright prevent completion, and will instead prompt the user if they wish to continue.

### ❌ **Cancel Character Creation**

Deletes the character (if new) or reverts changes made to existing character (technically deletes the copy it made of existing character so that original data is never affected during the character creation or editing process).