Version 1.0.2

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1.0 OVERVIEW

1.1 INTRODUCTION

Character Name Generator is a Unity Plug-in designed to easily generate random character names, nicknames, genders, and origins while remaining robust, modifiable, and expandable.

1.2 STATISTICS

• Name Prefixes: 101

o Male: 64

o **Female: 73**

o Unisex: 36

• Given Names: 61,896

o Male: 43,020

o Female: 41,829

o Unisex: 22,953

• Family Names: 158,024

• Name Suffixes: 10

Nicknames: 1,515

o Male: 1,429

o Female: 1,365

o Unisex: 1,279

• Origins: 101

o Categories: 7

Subcategories: 22

• Genders: 3

• Pronouns: 3

• Total Possible Name Combinations: 91,864,015,038,900,000,000,000

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1.3 FEATURES

The Character Name Generator includes several features to allow for flexibility.

- No setup required! Works straight out of the box
- Generates name prefixes, given names, family names, name suffixes, and nicknames
- Generates genders, preferred pronouns, and origins
- Filter outcomes by gender, name format, origin name, origin subcategory, and/or origin category
- Prevents reusing recently generated names
- Easily modifiable generator settings
- Toggle support for Unicode characters
- Loads data from easily readable JSON files
- Includes JSON wrapper class

1.4 BASIC USAGE

Implementing the Character Name Generator into your project can be done in three simple steps:

- Include the CNG namespace
 - o using CNG;
- Load the name data at startup or whenever loading would be most optimal
 - NameData.LoadNameData ();
- Generate a character
 - Character myCharacter = NameGenerator.GetCharacter ();

2.0 CLASSES

2.1 CNG.CHARACTER

Description: A class for storing data for a character. Variables

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Prefix

Type: string

Description: The name prefix for the character.

GivenName

Type: string

Description: The given name for the character. If the character has multiple given names, the names will be listed one after the other (e.g. Ashley Marie).

FamilyName

Type: string

Description: The family name for the character. If the character has multiple family names, the names will be listed one after the other (e.g. Johnson Green).

Suffix

Type: string

Description: The name suffix for the character.

Nickname

Type: string

Description: The nickname for the character.

Gender

Type: Gender.Label

Description: The gender of the character.

Pronouns

Type: Gender.Pronouns

Description: The preferred pronouns for the character.

• Origin

Type: Origin

Description: The origin for the character. All names for this characters will be assigned based on this origin to some degree.

Properties

WesternNameOrder

Type: string

Description: The character's full name constructed in the Western naming order (e.g. Prefix + Given + Family + Suffix).

• EasternNameOrder

Type: string

Description: The character's full name constructed in the Eastern naming order (e.g.

Prefix + Family + Given + Suffix).

• QuotedNickname

Type: string

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Description: The character's nickname placed in quotes (e.g. "Tiger").

1.2 CNG.GENDER

Description: A class for handling data associated with a character's gender. Enums

Label

Description: A typed set of gender labels

Values:

- o NONE
- o MALE
- o FEMALE
- NON_BINARY

• Pronouns

Description: A typed set of pronouns to be associated with a gender(s). *Values*:

- NONE
- o HE_HIM_HIS
- SHE_HER_HERS
- o THEY_THEM_THEIR

Functions

ToString (Label gender, bool isAbbreviated = false)

Return Type: string

Description: Get a string of the gender label.

Parameters:

o gender

Type: Label

Description: The gender label to be converted into a string.

isAbbreviated

Type: bool

Default Value: false

Description: Whether or not the gender label should be abbreviated.

GetSubjectivePronoun (Pronouns pronoun, bool isCapitalized = true)

Return Type: string

Description: Get the third-person subjective pronoun (e.g. he, she, they).

Parameters:

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o pronoun

Type: Pronouns

Description: The associated set of pronouns.

isCapitalized

Type: bool

Default Value: true

Description: Whether or not the string returned should be capitalized.

GetObjectivePronoun (Pronouns pronoun, bool isCapitalized = true)

Return Type: string

Description: Get the third-person objective pronoun (e.g. him, her, them).

Parameters:

o pronoun

Type: Pronouns

Description: The associated set of pronouns.

isCapitalized

Type: bool

Default Value: true

Description: Whether or not the string returned should be capitalized.

• GetPossessivePronoun (Pronouns pronoun, bool isCapitalized = true)

Return Type: string

Description: Get the third-person possessive pronoun (e.g. his, hers, their).

Parameters:

o pronoun

Type: Pronouns

Description: The associated set of pronouns.

isCapitalized

Type: bool

Default Value: true

Description: Whether or not the string returned should be capitalized.

2.2 CNG.ORIGIN

Description: A class for storing origin data for a name.

Enums

CategoryType

Description: The types of group for an origin.

Values:

o NONE

o AFRICAN

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- AMERICAN
- o ASIAN
- o **EUROPEAN**
- o INDIGENOUS
- OTHER

SubcategoryType

Description: The types of subgroup for an origin.

Values:

- o NONE
- NORTHERN_AFRICAN
- SOUTHERN_AFRICAN
- WESTERN_AFRICAN
- o EASTERN_AFRICAN
- CENTRAL_AMERICAN
- NORTHERN_AMERICAN
- SOUTHERN_AMERICAN
- CENTRAL_ASIAN
- SOUTHERN_ASIAN
- SOUTHEASTERN_ASIAN
- WESTERN_ASIAN
- o EASTERN_ASIAN
- NORTHERN_EUROPEAN
- SOUTHERN_EUROPEAN
- WESTERN_EUROPEAN
- EASTERN_EUROPEAN
- OCEANIC
- o AMERICAN
- o FANTASY
- SCIENCE_FICTION
- o OTHER

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Variables

• ID

Type: int

Default Value: 0

Description: The ID of the origin

Name

Type: string

Default Value: "None"

Description: The name of the origin

Subcategory

Type: Subcategory

Default Value: Subcategory.NONE

Description: The type of the origin's subcategory.

Category

Type: Category

Default Value: Category.NONE

Description: The type of the origin's category.

Weight

Type: float

Default Value: 0.0f

Description: The weighted percentage value of this origin.

Functions

ToString (SubcategoryType subcategory)

Return Type: string

Description: Converts a subcategory to a readable string.

Parameters:

subcategory

Type: SubcategoryType

Description: The subcategory to be converted.

ToString (CategoryType category)

Return Type: string

Description: Converts a category to a readable string.

Parameters:

$\circ \quad \textbf{category} \\$

Type: CategoryType

Description: The category to be converted.

SubcategoryFromString (string subcategory)

Return Type: SubcategoryType

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Description: Converts a string to a subcategory.

Parameters:

subcategory

Type: string

Description: The string to be converted.

• CategoryFromString (string category)

Return Type: CategoryType

Description: Converts a string to a category.

Parameters:

category

Type: CategoryType

Description: The string to be converted.

2.3 CNG.NAMEGENERATOR

Description: A class for generating random characters, genders, origins, formats, prefixes, given names, family names, suffixes, and nicknames. *Enums*

Format

Description: The types of name structures for a character.

Values:

- o NONE
- GIVEN_FAMILY
- GIVEN_GIVEN_FAMILY
- o GIVEN_FAMILY_FAMILY
- GIVEN_GIVEN_FAMILY_FAMILY

Functions

• GetCharacter()

Return Type: Character

Description: Generates a random character.

• GetCharacter (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: Character

Description: Generates a random character based on a specific origin name.

Parameters:

o origin

Type: string

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Description: The origin name the character should be based on. Passing "", "None", or "Any" will generate a character with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the character should be based on. Passing Gender.Label.NONE will generate a character with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the character should match. Passing Format.NONE will generate a character to match a random format.

GetCharacter (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: Character

Description: Generates a random character based on a specific origin subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the character should be based on. Passing Origin.SubcategoryType.NONE will generate a character with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the character should be based on. Passing Gender.Label.NONE will generate a character with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the character should match. Passing Format.NONE will generate a character to match a random format.

GetCharacter (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: Character

Description: Generates a random character based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the character should be based on. Passing Origin.CategoryType.NONE will generate a character with a random origin.

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o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the character should be based on. Passing Gender.Label.NONE will generate a character with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the character should match. Passing Format.NONE will generate a character to match a random format.

GetCharacter (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: Character

Description: Generates a random character based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the character should be based on. Passing an invalid

origin will generate a character with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the character should be based on. Passing Gender.Label.NONE will generate a character with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the character should match. Passing Format.NONE will generate a character to match a random format.

GetGender ()

Return Type: Gender.Label

Description: Randomly generates a gender based on the gender settings.

GetPronouns (Gender.Label gender)

Return Type: Gender.Pronouns

Description: Assigns a set of pronouns for a gender.

Parameters:

gender

Type: Gender.Label

Description: The gender to assign pronouns to.

GetOrigin (string origin)

Return Type: Origin

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Description: Generates an origin from any or an existing origin name. *Parameters*:

o origin

Type: string

Description: The name of the origin. Passing "", "None", or "Any" will

generate a random origin.

GetOrigin (Origin.SubcategoryType subcategory)

Return Type: Origin

Description: Generates an origin from any or an existing origin subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory. Passing Origin.SubcategoryType.NONE

will generate a random origin.

GetOrigin (Origin.CategoryType category)

Return Type: Origin

Description: Generates an origin from any or an existing origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category. Passing Origin.CategoryType.NONE will

generate a random origin.

GetFormat ()

Return Type: Format

Description: Generates a random name format based on the Double Name Chance

Settings.

GetPrefix ()

Return Type: string

Description: Generates a random name prefix.

GetPrefix (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name prefix based on a specific origin name.

Parameters:

o origin

Type: string

Description: The origin name the prefix should be based on. Passing "",

"None", or "Any" will generate a prefix with a random origin.

o gender

Type: Gender.Label

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Default Value: Gender.Label.NONE

Description: The gender the prefix should be based on. Passing Gender.Label.NONE will generate a prefix with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the prefix should match. Passing Format.NONE will generate a prefix to match a random format.

GetPrefix (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name prefix based on a specific origin

subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the prefix should be based on. Passing Origin.SubcategoryType.NONE will generate a prefix with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the prefix should be based on. Passing Gender.Label.NONE will generate a prefix with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the prefix should match. Passing Format.NONE will generate a prefix to match a random format.

GetPrefix (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

string

Description: Generates a random name prefix based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the prefix should be based on. Passing Origin.CategoryType.NONE will generate a prefix with a random origin.

o gender

Type: Gender.Label

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Description: The gender the prefix should be based on. Passing Gender.Label.NONE will generate a prefix with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the prefix should match. Passing Format.NONE will generate a prefix to match a random format.

GetPrefix (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name prefix based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the prefix should be based on. Passing an invalid

origin will generate a prefix with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the prefix should be based on. Passing Gender.Label.NONE will generate a character with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the prefix should match. Passing Format.NONE will generate a prefix to match a random format.

GetGivenName ()

Return Type: string

Description: Generates a random given name.

GetGivenName (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random given name based on a specific origin name.

Parameters:

o origin

Type: string

Description: The origin name the given name should be based on. Passing "", "None", or "Any" will generate a given name with a random origin.

o gender

Type: Gender.Label

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Description: The gender the given name should be based on. Passing Gender.Label.NONE will generate a given name with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the given name should match. Passing Format.NONE will generate a given name to match a random format.

GetGivenName (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random given name based on a specific origin subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the given name should be based on. Passing Origin.SubcategoryType.NONE will generate a given name with a

random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the given name should be based on. Passing Gender.Label.NONE will generate a given name with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the given name should match. Passing Format.NONE will generate a given name to match a random format.

GetGivenName (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random given name based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the given name should be based on. Passing Origin.CategoryType.NONE will generate a given name with a random origin.

o gender

Type: Gender.Label

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Description: The gender the given name should be based on. Passing Gender.Label.NONE will generate a given name with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the given name should match. Passing Format.NONE will generate a given name to match a random format.

• GetGivenName (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random given name based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the given name should be based on. Passing an

invalid origin will generate a given name with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the given name should be based on. Passing Gender.Label.NONE will generate a given name with a random gender.

o **format**

Type: Format

Default Value: Format.NONE

Description: The name format the given name should match. Passing Format.NONE will generate a given name to match a random format.

GetFamilyName ()

Return Type: string

Description: Generates a random family name.

GetFamilyName (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random family name based on a specific origin name.

Parameters:

o origin

Type: string

Description: The origin name the family name should be based on. Passing "", "None", or "Any" will generate a family name with a random origin.

o gender

Type: Gender.Label

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Description: The gender the family name should be based on. Passing Gender.Label.NONE will generate a family name with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the family name should match. Passing Format.NONE will generate a family name to match a random format.

GetFamilyName (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random family name based on a specific origin

subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the family name should be based on. Passing Origin.SubcategoryType.NONE will generate a family name with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the family name should be based on. Passing Gender.Label.NONE will generate a family name with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the family name should match. Passing Format.NONE will generate a family name to match a random format.

GetFamilyName (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random family name based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the family name should be based on. Passing Origin.CategoryType.NONE will generate a family name with a random origin.

o gender

Type: Gender.Label

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Description: The gender the family name should be based on. Passing Gender.Label.NONE will generate a family name with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the family name should match. Passing Format. NONE will generate a family name to match a random format.

GetFamilyName (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random family name based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the family name should be based on. Passing an

invalid origin will generate a family name with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the family name should be based on. Passing Gender.Label.NONE will generate a family name with a random gender.

o **format**

Type: Format

Default Value: Format.NONE

Description: The name format the family name should match. Passing Format. NONE will generate a family name to match a random format.

GetSuffix ()

Return Type: string

Description: Generates a random name suffix.

GetSuffix (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name suffix based on a specific origin name.

Parameters:

o origin

Type: string

Description: The origin name the suffix should be based on. Passing "", "None", or "Any" will generate a suffix with a random origin.

o gender

Type: Gender.Label

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Description: The gender the suffix should be based on. Passing Gender.Label.NONE will generate a suffix with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the suffix should match. Passing Format.NONE will generate a suffix to match a random format.

GetSuffix (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name suffix based on a specific origin subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the suffix should be based on. Passing Origin.SubcategoryType.NONE will generate a suffix with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the suffix should be based on. Passing Gender.Label.NONE will generate a suffix with a random gender.

o **format**

Type: Format

Default Value: Format.NONE

Description: The name format the suffix should match. Passing Format.NONE will generate a suffix to match a random format.

GetSuffix (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name suffix based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the suffix should be based on. Passing Origin.CategoryType.NONE will generate a suffix with a random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the suffix should be based on. Passing Gender.Label.NONE will generate a suffix with a random gender.

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o format

Type: Format

Default Value: Format.NONE

Description: The name format the suffix should match. Passing Format.NONE will generate a suffix to match a random format.

• GetSuffix (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random name suffix based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the suffix should be based on. Passing an invalid

origin will generate a suffix with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the suffix should be based on. Passing Gender.Label.NONE will generate a suffix with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the suffix should match. Passing Format.NONE will generate a suffix to match a random format.

GetNickname ()

Return Type: string

Description: Generates a random nickname.

• GetNickname (string origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: Character

Description: Generates a random nickname based on a specific origin name.

Parameters:

o origin

Type: string

Description: The origin name the nickname should be based on. Passing "",

"None", or "Any" will generate a nickname with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the nickname should be based on. Passing Gender.Label.NONE will generate a nickname with a random gender.

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o format

Type: Format

Default Value: Format.NONE

Description: The name format the nickname should match. Passing Format.NONE will generate a nickname to match a random format.

GetNickname (Origin.SubcategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random nickname based on a specific origin subcategory.

Parameters:

o origin

Type: Origin.SubcategoryType

Description: The origin subcategory the nickname should be based on. Passing Origin.SubcategoryType.NONE will generate a nickname with a

random origin.

o gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the nickname should be based on. Passing Gender.Label.NONE will generate a nickname with a random gender.

o format

Type: Format

Default Value: Format.NONE

Description: The name format the nickname should match. Passing Format.NONE will generate a nickname to match a random format.

GetNickname (Origin.CategoryType origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random nickname based on a specific origin category.

Parameters:

o origin

Type: Origin.CategoryType

Description: The origin category the nickname should be based on. Passing Origin.CategoryType.NONE will generate a nickname with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the nickname should be based on. Passing Gender.Label.NONE will generate a nickname with a random gender.

format

Type: Format

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Default Value: Format.NONE

Description: The name format the nickname should match. Passing Format.NONE will generate a nickname to match a random format.

GetNickname (Origin origin, Gender.Label gender = Gender.Label.NONE, Format format = Format.NONE)

Return Type: string

Description: Generates a random nickname based on a specific origin.

Parameters:

o origin

Type: Origin

Description: The origin the nickname should be based on. Passing an invalid

origin will generate a nickname with a random origin.

gender

Type: Gender.Label

Default Value: Gender.Label.NONE

Description: The gender the nickname should be based on. Passing Gender.Label.NONE will generate a nickname with a random gender.

format

Type: Format

Default Value: Format.NONE

Description: The name format the nickname should match. Passing Format.NONE will generate a nickname to match a random format.

2.4 CNG.SETTINGS

Description: A class containing data settings for the Character Name Generator *Variables*

GenderMaleChance

Type: float

Default Value: GENDER_MALE_CHANCE_DEFAULT

Description: The probability of a character/name will be randomly generated as male. All gender chance settings should add up to 1.0f to function accurately.

GenderFemaleChance

Type: float

Default Value: GENDER FEMALE CHANCE DEFAULT

Description: The probability of a character/name will be randomly generated as female. All gender chance settings should add up to 1.0f to function accurately.

GenderNonBinaryChance

Type: float

Default Value: GENDER_NON_BINARY_CHANCE_DEFAULT

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Description: The probability of a character/name will be randomly generated as non-binary. All gender chance settings should add up to 1.0f to function accurately.

NamePrefixChance

Type: float

Default Value: NAME_PREFIX_CHANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to have a prefix in their name. This setting should be set between 0f and 1.0f to function properly.

NameSuffixChance

Type: float

Default Value: NAME SUFFIX CHANCE DEFAULT

Description: The probability of a character/name will be randomly generated to have a suffix in their name. This setting should be set between 0f and 1.0f to function properly.

DoubleGivenNameChance

Type: float

Default Value: DOUBLE_GIVEN_NAME_CHANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to have two given names (e.g. Elizabeth Marie Smith). This setting should be set between 0f and 1.0f to function properly.

• DoubleFamilyNameChance

Type: float

Default Value: DOUBLE_FAMILY_NAME_CHANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to have two family names (e.g. Jacob Washington Smith). This setting should be set between 0f and 1.0f to function properly.

• OriginTolerance

Type: float

Default Value: ORIGIN_TOLERANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to match the origin of a provided or existing origin. If a matching origin is not available, a matching subcategory will be searched next. All origin tolerance settings should add to 1.0f to function accurately.

OriginSubcategoryTolerance

Type: float

Default Value: ORIGIN SUBCATEGORY TOLERANCE DEFAULT

Description: The probability of a character/name will be randomly generated to match the subcategory of a provided or existing origin. If a matching subcategory is not available, a matching category will be searched next. All origin tolerance settings should add to 1.0f to function accurately.

OriginCategoryTolerance

Type: float

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Default Value: ORIGIN_CATEGORY_TOLERANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to match the category of a provided or existing origin. If a matching category is not available, any origin/subcategory/category will be searched next. All origin tolerance settings should add to 1.0f to function accurately.

OriginAnyTolerance

Type: float

Default Value: ORIGIN_ANY_TOLERANCE_DEFAULT

Description: The probability of a character/name will be randomly generated to match any origin/subcategory/category regardless of a provided or existing origin.

UseUnicodeCharacters

Type: bool

Default Value: USE_UNICODE_CHARACTERS_DEFAULT

Description: Whether or not special characters contained within names should be converted into their associated Unicode character or defaulted to their basic ASCII character.

PreventRecentRepeats

Type: bool

Default Value: PREVENT RECENT REPEATS DEFAULT

Description: Whether or not the generator should avoid giving a character the same given name, family name, or nickname as any other past 100 characters generated. (e.g. James "Tank" Prescott would prevent John "Tank" Smith and Jane "Inferno" Prescott but would allow Jessica "Nova" James). Disable this setting for faster performance from the generator.

EnableWeightedOrigins

Type: bool

Default Value: ENABLE WEIGHTED ORIGINS DEFAULT

Description: Whether or not the generator should generate an origin based on its weighted percentage. Weighted percentages for origins by default are calculated based on the number of available given, family, nicknames, suffixes, and prefixes that fall under an origin.

OutputPerformance

Type: bool

Default Value: OUTPUT PERFORMANCE DEFAULT

Description: Whether or not the generator should output performance reports to the log. Performance reports log the amount of time in milliseconds it takes to generate a name.

Constants

• GENDER_MALE_CHANCE_DEFAULT

Type: float *Value*: 0.45f

Description: The default value for the Gender Male Chance Setting.

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GENDER_FEMALE_CHANCE_DEFAULT

Type: float *Value*: 0.45f

Description: The default value for the Gender Female Chance Setting.

GENDER_NON_BINARY_CHANCE_DEFAULT

Type: float Value: 0.1f

Description: The default value for the Gender Non-Binary Chance Setting.

NAME_PREFIX_CHANCE_DEFAULT

Type: float *Value*: 0.2f

Description: The default value for the Name Prefix Chance Setting.

NAME_SUFFIX_CHANCE_DEFAULT

Type: float Value: 0.1f

Description: The default value for the Name Suffix Chance Setting.

DOUBLE_GIVEN_NAME_CHANCE_DEFAULT

Type: float Value: 0.1f

Description: The default value for the Double Given Name Chance Setting.

DOUBLE_FAMILY_NAME_CHANCE_DEFAULT

Type: float Value: 0.1f

Description: The default value for the Double Family Name Chance Setting.

ORIGIN_TOLERANCE_DEFAULT

Type: float Value: 0.9f

Description: The default value for the Origin Tolerance Setting.

ORIGIN_SUBCATEGORY_TOLERANCE_DEFAULT

Type: float Value: 0.07f

Description: The default value for the Origin Subcategory Tolerance Setting.

• ORIGIN_CATEGORY_TOLERANCE_DEFAULT

Type: float Value: 0.03f

Description: The default value for the Origin Category Tolerance Setting.

ORIGIN_ANY_TOLERANCE_DEFAULT

Type: float Value: Of

Description: The default value for the Origin Any Tolerance Setting.

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• USE_UNICODE_CHARACTERS_DEFAULT

Type: bool *Value*: true

Description: The default value for the Unicode Characters Setting.

• PREVENT_RECENT_REPEATS_DEFAULT

Type: bool *Value*: true

Description: The default value for the Recent Repeat Setting.

• ENABLE_WEIGHTED_ORIGINS_DEFAULT

Type: bool *Value*: true

Description: The default value for the Weighted Origins Setting.

OUTPUT_PERFORMANCE_DEFAULT

Type: bool *Value*: true

Description: The default value for the Output Performance Setting.

2.5 CNG.NAMEDATA

Description: A class for storing the name entry data loaded from JSON files. *Data Structures*

NameEntry

Type: struct

Description: A data structure for storing the data of each name.

Elements

Name

Type: string

o IsMale

Type: bool

o IsFemale

Type: bool

Type

Type: string

Origins

Type: Origin []

Properties

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IsNameDataLoaded

Type: bool

Description: Whether or not the name data have been loaded.

GivenNames

Type: NameEntry []

Description: The name entries for given names.

FamilyNames

Type: NameEntry []

Description: The name entries for family names.

Nicknames

Type: NameEntry []

Description: The name entries for nicknames.

NamePrefixes

Type: NameEntry []

Description: The name entries for prefixes.

NameSuffixes

Type: NameEntry []

Description: The name entries for suffixes.

Origins

Type: Origin []

Description: The data for origins.

Functions

LoadNameData ()

Return Type: void

Description: Loads the name data for the generator.

GetFilteredEntries (EntryDataset dataset)

Return Type: NameEntry []

Description: Gets the filtered name entries from a specific dataset.

GetFilteredEntries (EntryDataset dataset, Origin origin)

Return Type: NameEntry []

Description: Gets the filtered name entries from a specific dataset by origin.

2.6 CNG.UNICODEMANAGER

Description: A class for converting stand-in special characters into either Unicode characters or ASCII characters. This class currently only supports the Latin Extended-A Unicode block. *Functions*

SpecialCharacterCheck (string name)

Return Type: bool

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Description: Checks whether or not a name contains any special characters that need to be converted.

Parameters:

o name

Type: string

Description: The name being checked for special characters.

ConvertSpecialCharacter (string name, bool useUnicode = true)

Return Type: string

Description: Converts special characters into either Unicode characters or ASCII

characters.

Parameters:

o name

Type: string

Description: The name containing any possible special characters to convert.

o useUnicode

Type: bool

Default Value: true

Description: Whether to convert special characters into Unicode characters

(true) or ASCII characters (false).

2.7 CNG.JSONWRAPPER

Description: A class for reading an array of elements from a JSON file without needing to create a custom wrapper class to hold the data.

Functions

GetJsonFromResources (string path)

Return Type: string

Description: Loads a JSON file from the Resources folder.

Parameters:

o path

Type: string

Description: The path to the file within Resources (File extension not

needed).

FromJson<T> (string json)

Return Type: T []

Description: Converts a JSON string into an array of generic type parameter T.

Parameters:

o json

Type: string

Description: The JSON string.

3.0 UNICODE

3.1 UNICODE, ASCII, AND SPECIAL CHARACTERS

The Unicode Manager (CNG.UnicodeManager.cs) is used for converting special characters into either Unicode characters or ASCII characters. Special characters are used in all JSON files in place of any Unicode characters in order to prevent any potential reading or display issues from Unicode characters. Currently, the Unicode Manager only supports the Latin Extended-A Unicode block.

3.2 CONVERSION TABLE

| Unicode Decimal Number | Special Character | Unicode Character | ASCII Character |
|------------------------|-------------------|-------------------|-----------------|
| 256 | <a> | Ā | А |
| 257 | <a> | ā | a |
| 258 | <a^></a^> | Ă | А |
| 259 | <a^></a^> | ă | a |
| 260 | <a,></a,> | Ą | Α |
| 261 | <a,></a,> | ą | a |
| 262 | <c'></c'> | Ć | С |
| 263 | <c'></c'> | Ć | С |
| 264 | <c^></c^> | Ĉ | С |
| 265 | <c^></c^> | ĉ | С |
| 266 | <c.></c.> | Ċ | С |
| 267 | <c.></c.> | ċ | С |
| 268 | <ch></ch> | Č | С |
| 269 | <ch></ch> | č | С |
| 270 | <d'></d'> | Ď | D |
| 271 | <d'></d'> | ď | d |

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| 272 | <d-></d-> | Ð | D |
|----------|-----------|---|---|
| 273 | <d-></d-> | đ | d |
| 274 | <e></e> | Ē | E |
| 275 | <e></e> | ē | е |
| 276 | <e^></e^> | Ĕ | E |
| 277 | <e^></e^> | ě | е |
| 278 | <e.></e.> | Ė | E |
| 279 | <e.></e.> | ė | е |
| 280 | <e,></e,> | Ę | E |
| 281 | <e,></e,> | ę | е |
| 282 | <ec></ec> | Ě | E |
| 283 | <ec></ec> | ě | е |
| 284 | <gc></gc> | Ĝ | G |
| 285 | <gc></gc> | ĝ | g |
| 286 | <g^></g^> | Ğ | G |
| 287 | <g^></g^> | ğ | g |
| 288 | <g.></g.> | Ġ | G |
| 289 | <g.></g.> | ģ | g |
| 290 | <g,></g,> | Ģ | G |
| 291 | <g'></g'> | ģ | g |
| 292 | <h^></h^> | Ĥ | Н |
| 293 | <h^></h^> | ĥ | h |
| 294 | <h-></h-> | Ħ | Н |
| 295 | <h-></h-> | ħ | h |
| 296 | <i~></i~> | Ĩ | I |
| 297 | <i~></i~> | ĩ | i |
| 298 | <i></i> | Ī | I |
| 299 | <i></i> | ī | i |
| 300 | <i^></i^> | Ĭ | I |
| <u> </u> | ı | | |

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| 301 | <i^></i^> | ĭ | i |
|-----|-----------|----|----|
| 302 | <i,></i,> | Į | I |
| 303 | <i,></i,> | į | i |
| 304 | <i.></i.> | İ | I |
| 305 | <i.></i.> | 1 | i |
| 306 | <ij></ij> | IJ | IJ |
| 307 | <ij></ij> | ij | ij |
| 308 | <j^></j^> | Ĵ | J |
| 309 | <j^></j^> | ĵ | j |
| 310 | <k,></k,> | Ķ | К |
| 311 | <k,></k,> | ķ | k |
| 312 | <kr></kr> | К | k |
| 313 | <l'></l'> | Ĺ | L |
| 314 | <1'> | ĺ | 1 |
| 315 | <l,></l,> | Ļ | L |
| 316 | <1,> | ļ | 1 |
| 317 | <lc></lc> | Ľ | L |
| 318 | <1c> | ľ | 1 |
| 319 | <l-></l-> | Ŀ | L |
| 320 | <1-> | l· | 1 |
| 321 | <l></l> | Ł | L |
| 322 | <1/> | ł | 1 |
| 323 | <n'></n'> | Ń | N |
| 324 | <n'></n'> | ń | n |
| 325 | <n,></n,> | Ņ | N |
| 326 | <n,></n,> | ù | n |
| 327 | <n^></n^> | Ň | N |
| 328 | <n^></n^> | ň | n |
| 329 | <'n> | 'n | n |
| | | | |

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| <ng></ng> | Ŋ | N |
|-----------|---|---|
| <ng></ng> | ŋ | n |
| <0/> | Ō | 0 |
| <0/> | ō | 0 |
| <0^> | Ŏ | 0 |
| <0^> | ŏ | 0 |
| <0'> | Ő | 0 |
| <0'> | ő | 0 |
| <0E> | Œ | OE |
| <oe></oe> | œ | oe |
| <r'></r'> | Ŕ | R |
| <r'></r'> | ŕ | r |
| <r,></r,> | Ŗ | R |
| <r,></r,> | ŗ | r |
| <r^></r^> | Ř | R |
| <r^></r^> | ř | r |
| <s'></s'> | Ś | S |
| <s'></s'> | Ś | S |
| <\$^> | Ŝ | S |
| <s^></s^> | ŝ | S |
| <s,></s,> | \$ | S |
| <s,></s,> | Ş | S |
| <sc></sc> | Š | S |
| <sc></sc> | Š | S |
| <t,></t,> | T | Т |
| <t,></t,> | ţ | t |
| <t^></t^> | Ť | Т |
| <t^></t^> | ť | t |
| <t-></t-> | Ŧ | Т |
| | <ng> <0/> <0/> <0/> <0/> <0/> <0/> <0/> <0/</ng> | <ng>> n <0/>> ō <0/>> ō <0^>> ŏ <0'</ng> |

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| 359 | <t-></t-> | ŧ | t |
|-----|-----------|---|---|
| | | | |
| 360 | <u~></u~> | Ũ | U |
| 361 | <u~></u~> | ũ | u |
| 362 | <u></u> | Ū | U |
| 363 | <u></u> | ū | u |
| 364 | <u^></u^> | Ŭ | U |
| 365 | <u^></u^> | ŭ | u |
| 366 | <u0></u0> | Ů | U |
| 367 | <uo></uo> | ů | u |
| 368 | <u'></u'> | Ű | U |
| 369 | <u'></u'> | ű | u |
| 370 | <u,></u,> | Ų | U |
| 371 | <u,></u,> | ų | u |
| 372 | <w^></w^> | Ŵ | W |
| 373 | <w^></w^> | ŵ | W |
| 374 | <y^></y^> | Ŷ | Y |
| 375 | <y^></y^> | ŷ | у |
| 376 | <y'></y'> | Ϋ | Y |
| 377 | <z'></z'> | Ź | Z |
| 378 | <z'></z'> | ź | Z |
| 379 | <z.></z.> | Ż | Z |
| 380 | <z.></z.> | ż | Z |
| 381 | <z^></z^> | Ž | Z |
| 382 | <z^></z^> | ž | Z |
| 383 | <ls></ls> | ٢ | S |
| | | | |

4.0 EXPANDING AND MODIFYING

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4.1 ADDING GIVEN OR FAMILY NAMES

To expand on the lists of given names and family names for the Character Name Generator, you will need to modify the Character Name Generator - Given Names.json and Character Name Generator - Family Names.json files respectively in the Resources folder. When editing the given names JSON file, you will need to include the following elements:

Name

Description: The given name.

Male

Description: Whether the given name is considered a male name ("Y") or not ("N").

Female

Description: Whether the given name is considered a female name ("Y") or not ("N").

Origins

Description: A comma separated list of origin names associated with the given name. The value "Any" can be used to allow the given name to be used with any origin.

When editing the family names JSON file, you will need to include the following elements:

Name

Description: The family name.

• Origins

Description: A comma separated list of origin names associated with the family name. The value "Any" can be used to allow the family name to be used with any origin.

If any given names or family names that are added contain Unicode characters, be sure replace the Unicode characters with the associated special characters (see 3.2 Conversion Table).

4.2 ADDING NAME PREFIXES OR SUFFIXES

To expand on the lists of name prefixes and suffixes for the Character Name Generator, you will need to modify the Character Name Generator - Prefixes.json and Character Name Generator - Suffixes.json files respectively in the Resources folder. When editing the name prefixes JSON file, you will need to include the following elements:

Name

Description: The name prefix.

Male

Description: Whether the name prefix is considered a male prefix ("Y") or not ("N").

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Female

Description: Whether the name prefix is considered a female prefix ("Y") or not ("N").

Origins

Description: A comma separated list of origin names associated with the name prefix. The value "Any" can be used to allow the name prefix to be used with any origin.

When editing the name suffixes JSON file, you will need to include the following elements:

Name

Description: The name suffix. Starting the suffix with a comma will prevent the full name from placing a space before the suffix.

• Origins

Description: A comma separated list of origin names associated with the name suffix. The value "Any" can be used to allow the name suffix to be used with any origin.

If any name prefix or suffix that are added contain Unicode characters, be sure replace the Unicode characters with the associated special characters (see 3.2 Conversion Table).

4.3 ADDING NICKNAMES

To expand on the lists of nicknames for the Character Name Generator, you will need to modify the Character Name Generator - Nicknames.json file in the Resources folder. When editing the nicknames JSON file, you will need to include the following elements:

Name

Description: The nickname.

Male

Description: Whether the nickname is considered a male name ("Y") or not ("N").

Female

Description: Whether the nickname is considered a female name ("Y") or not ("N").

Type

Description: The broad category of the nickname (e.g. History, Mythology, etc.). The value "General" can be used to allow the nickname to be used with any type, however the Character Name Generator does not filter by type in the current version.

Origins

Description: A comma separated list of origin names associated with the nickname. The value "Any" can be used to allow the nickname to be used with any origin.

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If any nicknames that are added contain Unicode characters, be sure replace the Unicode characters with the associated special characters (see 3.2 Conversion Table).

4.4 Adding Genders and Pronouns

To expand on the supported genders for the Character Name Generator, you will need to modify the following:

- Gender.Label
- Gender.ToString (Label gender, bool isAbbreviated = false)
- NameGenerator.GetGender ()
- NameGenerator.GetPronouns (Gender.Label gender)
- NameGenerator.FilterByGender (NameData.NameEntry data, Gender.Label gender)

To expand on the supported pronouns for the Character Name Generator, you will need to modify the following:

- Gender.Pronouns
- Gender.GetSubjectivePronoun (Pronouns pronoun, bool isCapitalized = true)
- Gender.GetObjectivePronoun (Pronouns pronoun, bool isCapitalized = true)
- Gender.GetPossessivePronoun (Pronouns pronoun, bool isCapitalized = true)
- NameGenerator.GetPronouns (Gender.Label gender)

4.5 Adding Name Formats

To expand on the supported name formats for the Character Name Generator, you will need to modify the following:

- NameGenerator.Format
- NameGenerator.GetFormat ()