

## Hearts of Iron 4 Wiki

This is a community maintained wiki. If you spot a mistake then you are welcome to fix it.

HOI4 uses the modified **YAML localization** system used by modern Paradox games.

The localisation is stored within the /Hearts of Iron IV/localisation/ folder, in which any sub-folder can be used. Each file is assigned a language with its filename by adding it in the end, with the following languages existing:

`1_english`: English, as in /Hearts of Iron IV/localisation/english/filename\_1\_english.yml

`1_french`: French, as in /Hearts of Iron IV/localisation/french/mod\_file\_1\_french.yml

`1_german`: German, as in /Hearts of Iron IV/localisation/german/state\_names\_1\_german.yml

`1_spanish`: Spanish, as in /Hearts of Iron IV/localisation/spanish/mod\_germany\_1\_spanish.yml

`1_braz_por`: Brazilian Portuguese, as in /Hearts of Iron IV/localisation/braz\_por/bahrain\_1\_braz\_por.yml

`1_polish`: Polish, as in /Hearts of Iron IV/localisation/polish/myfile\_1\_polish.yml

`1_russian`: Russian, as in /Hearts of Iron IV/localisation/russian/siberia\_1\_russian.yml

`1_japanese`: Japanese, as in /Hearts of Iron IV/localisation/japanese/kuril\_1\_japanese.yml

The filename **has to end with the language's internal name** as the file will not be loaded otherwise.

The currently-turned on language is chosen within the user directory's /Hearts of Iron IV/settings.txt file, however, more languages cannot be added directly other than these listed languages.

### Quick checklist[[编辑](#) | [编辑源代码](#)]

In order for a file to work, it must have the following:

The file has the .yml extension. By default, Windows hides file extensions, so this must be turned off to change the extension and to easily see it.

The file's name, minus the extension, has to end with the internal name of the language, e.g. filename\_1\_english.yml. In this case, **1 is a lowercase L**.

**The file has to be encoded in UTF-8-BOM** - the UTF-8 encoding with the **EFBBBF** byte order mark at the beginning of the file. The game throws an error in the log if this is not met.

The first line of the file has to be the internal language followed by a colon, such as `1_english:`. This assigns the keys within to the larger `1_english` database.

### Basics[[编辑](#) | [编辑源代码](#)]

Localisation is created within any file in the localisation folder: the filename aside from the file extension is irrelevant aside from deciding which language is chosen.

**Every localisation file must use the UTF-8-BOM encoding**, i.e. the UTF-8 encoding with the byte order mark in the beginning of the file. Exact details depend on the text editor:

Notepad++: Top bar's "Encoding" menu provides a selection of encodings. UTF-8-BOM is used in this case.

Sublime Text: Top bar's "File" menu provides the "Save with Encoding" selection. UTF-8 with BOM is used in this case.

Visual Studio Code: In the bottom bar, there's the "Select Encoding" button titled with the current encoding (Usually "UTF-8" or "UTF-8 with BOM"). To convert, this must be pressed and then "Save with encoding" must be selected with "UTF-8 with BOM".

The first line in the file decides the language in addition to the filename, such as `1_english`:

Next lines are structured in the format of `localisation_key:0 "localisation value"`. In here:

`localisation_key` is the localisation key that is being localised. This is usually the same as the name of the database entry (e.g. a focus with the name of TAG\_focusname will have TAG\_focusname as the needed localisation key). Other times, it's possible or required to set in the database entry itself (e.g. `title = my_event.1.t` within an event). Commonly, appending `_desc` as TAG\_focusname\_desc provides the localisation key for the description, such as with characters, focuses, ideas, traits, and so on.

**The localisation key cannot have special characters in it**, where a special character is defined as taking up more than 1 byte using the UTF-8 encoding. This includes every character other than those in [the ASCII character system](#), so in essence localisation keys shouldn't have anything other than [English letters, underscores, dots, and numbers](#). Localisation keys additionally cannot include spaces in them. Either one will show up within the error log as an error of the sort of Expected colon(:) at line <...>.

o is the version number, used for Paradox's internal translation tracking.<sup>[1]</sup> This is never read in-game, and **it can be omitted entirely with no difference**.

Localisation value refers to the text that will show up in-game. **This must be on one line total**, multiple lines will break the file. Instead, newlines are marked using `\n` (Note that this is a backslash rather than a regular slash), such as localisation\_key: "First line.\nSecond line." A space after the `\n` should be avoided, as it will appear in-game as offsetting the next lines.

Any issue with localisation, such as special characters or spaces in localisation keys or a missing quote, will break the localisation file starting with the point where the syntax first stopped being followed correctly.

An example of a localisation file's contents is the following:

```
1_english:
infantry_equipment:"Infantry Equipment"
infantry_equipment_short: "Inf. Eq."
infantry_equipment_desc: "This is infantry equipment"
```

### Replacing[[编辑](#) | [编辑源代码](#)]

Typically, localisation key overlap must be avoided, overlap being the same localisation key being defined several times in the same language's files. This is tracked within [user directory's /Hearts of Iron IV/logs/text.log](#) file, which contains a list of overlapping localisation keys if any. The value that'll get chosen does not seem to have a consistent pattern, but seems to prioritise base game files.

However, if the localisation file is contained within a folder with the name of "replace" (such as /Hearts of Iron IV/localisation/english/replace, still must be inside of localisation), it will get priority over the entries that are not. This can be helpful to overwrite only specific localisation keys without porting over the entire file, such as if the file gets frequently updated in base game.

For example, if desiring to change the name of the effect to add political power from the default `POLITICS_ADD_POLITICAL_POWER:0 "Political Power: $VAL|=+0$."`, it may be undesirable to port over the entire /Hearts of Iron IV/localisation/english/effects\_1\_english.yml file to the mod, as new effects frequently get added to the game which would mean the file has to be kept in check. However, instead creating a new localisation file within the /Hearts of Iron IV/localisation/english/replace/ folder and defining the `POLITICS_ADD_POLITICAL_POWER` localisation key there will result in the value of the key getting changed without needing to copy the entire localisation file, meaning that the mod is now easier to port to future updates.

For example, /Hearts of Iron IV/localisation/english/replace/mod\_replace\_1\_english.yml would contain the following content:

```
1_english:
POLITICS_ADD_POLITICAL_POWER:o "New mana: $VAL|=+o$."
```

### Special characters[[编辑](#) | [编辑源代码](#)]



Colouring characters[[编辑](#) | [编辑源代码](#)]

Various characters can be added to a string to alter its colour in-game. The text you want to be coloured in a different way has to be prefaced with a colouring character and has to end with `§!`, with the exclamation point.

The following formatting characters are implemented (The colour provided is the default generic colour and may be different depending on the font):

| Code | Effect   | Exact colour      |
|------|--|-------------------|
| §!   | Ends the current formatting rule.                              | None.             |
| §C   | Colours the text cyan.   | ( 35, 206, 255 )  |
| §L   | Colours the text a dirty orange-gray (labeled "lilac").        | ( 195, 176, 145 ) |
| §W   | Colours the text white.  | ( 255, 255, 255 ) |
| §B   | Colours the text blue.   | ( 0, 0, 255 )     |
| §G   | Colours the text green.  | ( 0, 159, 3 )     |
| §R   | Colours the text red.  | ( 255, 50, 50 )   |
| §b   | Colours the text black.  | ( 0, 0, 0 )       |
| §g   | Colours the text light gray.                                   | ( 176, 176, 176 ) |
| §Y   | Colours the text yellow.                                       | ( 255, 189, 0 )   |
| §H   | Colours the text yellow (same as §Y, labeled "header").        | ( 255, 189, 0 )   |
| §T   | Colours the text white (same as §W, labeled "Title").          | ( 255, 255, 255 ) |
| §O   | Colours the text orange.                                       | ( 255, 112, 25 )  |
| §o   | Colours the text purple (labeled "Gradient Step 0").           | ( 203, 0, 203 )   |
| §1   | Colours the text lilac (labeled "Gradient Step 1").            | ( 128, 120, 211 ) |
| §2   | Colours the text blue (labeled "Gradient Step 2").             | ( 81, 112, 243 )  |
| §3   | Colours the text gray-blue (labeled "Gradient Step 3").        | ( 81, 143, 220 )  |
| §4   | Colours the text light blue (labeled "Gradient Step 4").       | ( 90, 190, 231 )  |
| §5   | Colours the text dull cyan (labeled "Gradient Step 5").        | ( 63, 181, 194 )  |
| §6   | Colours the text turquoise (labeled "Gradient Step 6").        | ( 119, 204, 186 ) |
| §7   | Colours the text light green (labeled "Gradient Step 7").      | ( 153, 209, 153 ) |
| §8   | Colours the text an orange-yellow (labeled "Gradient Step 8"). | ( 204, 163, 51 )  |
| §9   | Colours the text white-orange (labeled "Gradient Step 9").     | ( 252, 169, 125 ) |
| §t   | Colours the text vivid red (labeled "Gradient Step 10").       | ( 255, 76, 77 )   |

Here is an example of the colour formatting:

`l_english:`

`example_key: "This is my text, §Bthis text is blue§!, and §Rthis text is red§!"`

New text colours can be added by expanding the `textcolors = { ... }` array in `/Hearts of Iron IV/interface/core.gfx`. Colour keys *cannot* have more than one letter (i.e. "`BU = {0 255 0}`"), and will attempt to overwrite another colour key with the same first letter. It is also possible to make a colouring character represent a different colour from default when a certain font is used within the [bitmapfont definition](#) of that font.

Errors[[编辑](#) | [编辑源代码](#)]

The errors related to the colouring characters can be fairly unintuitive to find, considering that they do not provide the location of the file.

There are two types of the error:

`Could not find coloring for character 'M'` – This exact example means that, somewhere, the game found `§M` within localisation; however, since "M" isn't a valid colour, this is an unexpected result. The exact character is provided, so finding the cause should be elementary.

`Could not find coloring for character id '17'` – Note that it specifies the character ID. In this case, the [printable Unicode character ID is provided](#). This is typically done where providing the actual character would be confusing (e.g. for the number "1", the game would specify the character id "17" if such a colour doesn't exist. Since "1" is the 18th printed character, it has the id of 17, as the numeration typically starts from 0.)

This has a notable exception: the character id 'o' refers to the NULL character rather than a space, where the game instead provides the character itself. In other words, the character id 'o' means there is *absolutely nothing* after the `§` symbol, therefore the string ends with `§`. As such, locating this error would be done by searching for `§` " This is usually caused by omitting the exclamation mark from the character to end the colour formatting, which would properly be `§!`.

Searching can be done using a text editor with the "Find in Files" functionality. For example, this is how the functionality is accessed in the more common editors to use:

**Notepad++** – This is located in the "Search" topbar menu as "Find in Files...". By default, no folder is provided. "Follow current doc." allows the text editor to automatically input the currently-opened document's folder as the place for the search, or it can be entered manually. Alternatively, this menu can be opened from the right-click menu of a folder within the "Folder as Workspace" menu – accessed by a button in the topbar – which'll automatically set the folder location to be that folder.

**Sublime Text** – This is located in the "Find" topbar menu as "Find in Files...". In order to add a folder to search, the menu to the right of the "Where:" line can be opened, with either "Add Folder" (to select an individual folder) or "Add Open Folders" (To automatically select all folders opened via Sublime Text) buttons serving to do so.

**Visual Studio Code** – Visual Studio Code only supports searching the currently opened folder. A folder is opened either through the "Open Folder..." button in the "File" topbar menu or the "Explorer" menu, accessed through the bar on the left. After this, the functionality can be accessed in the "Edit" menu as "Find in Files". In order to speed up the search, filename filters can be used. For example, `localisation/english/*.yaml` within "files to include" will only search every \*.yaml file within the <currently opened folder>/localisation/english/ folder, where \* stands for any amount (including 0) of any characters within the filename. Similar filters can be used in the previous two text editors, however without allowing folders to be filtered — only the filenames.

Formatting variables[[编辑](#) | [编辑源代码](#)]

See also: [Variables](#)

Variables have a special way to more easily apply the colouring characters, as well as special formatting characters. These are applied after a pipe placed at the end of the variable's name, such as `[?my_variable|R]` that will turn the colour of the variable `my_variable` red. The exact list of formatting characters that are restricted to variables only are the following:

| Code | Effect  |
|------|---|
| %    | Converts the variable to percentage, multiplying by 100 and appending a %.  |
| %%   | Appends a percentage to the end of the variable without multiplying by 100. |

|      |   |
|------|---|
| *    | Converts the variable to SI units—appends "K" or "M" and divides the variable appropriately, such as 65 536 becoming 65.53K and 1 500 000 becoming 1.50M. Displays 2 decimals after the dot by default. |
| ^    | Same as *.  |
| =    | Prefixes the variable with + if the value is positive or - if it is negative.   |
| o..3 | Controls the number of decimals to display. Due to the nature of the game's variables, there are no more than 3 decimals that can be used. Optionally possible to prepend a dot to the beginning.       |
| +    | Colours the variable green if positive, yellow if zero, red if negative.  |
| -    | Colours the variable red if positive, yellow if zero, green if negative.  |

Here are some examples of formatting characters in usage:

```
loc_key: "Democratic party popularity: [?party_popularity@democracy]%Go]"
loc_key_2: "Modifier token's value: [?modifier@my_modifier|.1%%+]"
```

Within these examples, the first string depicts the current scope's democratic popularity as a percentage multiplied by 100 (%), in green (G), rounded to a whole number with 0 decimals (o). The second string displays the `my_modifier` [modifier token](#)'s value as a 'good' number (+ making it green if positive, red if negative), with a percentage sign appended in the end (%%) and rounded to a number with one decimal (.1).

**Country's flags**[\[编辑\]](#) [\[编辑源代码\]](#)

The following in localisation will display the default, `/Hearts of Iron IV/gfx/flags/TAG.tga`, flag of a country: `@TAG`  
It's recommended to use the `GetFlag` namespace when possible instead, however, this can be used on localisation that doesn't support namespaces, such as custom modifier tooltips or the game rules.

**Text icons**[\[编辑\]](#) [\[编辑源代码\]](#)

Icons can be displayed within strings using the `£` notation.

```
l_english:
example_key: "£army_experience"
```

Text icons are added as `spriteType = { ... }` definitions in `/Hearts of Iron IV/interface/*.gfx` files within an overarching `spriteTypes = { ... }`. An example definition of one looks like:

```
spriteType = {
    name = "GFX_my_text_icon"
    texturefile = "gfx/texticons/filename.dds"
    legacy_lazy_load = no
}
```

The text icon's name is equal to the text icon with the `GFX_` part in the beginning removed, being `£my_text_icon` in this case.

If the sprite of the text icon is made out of multiple frames, then the specified frame can be used in localisation as `£icon_name|1`, this example being the first frame. Note that `legacy_lazy_load = no` is necessary for multi-framed text icons to work properly.

**Nesting strings**[\[编辑\]](#) [\[编辑源代码\]](#)

The dollar sign special symbol is used for nesting other strings within any given localisation key's value. In particular, there are 3 primary usage cases for it:

Nesting other localisation keys. For example, `some_modifier_tooltip:0 "$modifier_production_speed_infrastructure_factor$: $R-10%$!"` will show up in-game as Infrastructure construction speed: -10%, assuming that `modifier_production_speed_infrastructure_factor`'s definition is unchanged from the base game.

This is useful with localisation key values that need to be re-used within others, but can be easily changed during the development of the mod, as to not need to adjust every single localisation value that uses it when changing it. This can also be used to expand compatibility with base game updates or other mods that may potentially change the localisation value but should still be compatible with the mod.

When used within `pdx_tooltip` of an interface element, this does not work properly, instead showing up with the dollar signs visible. This can be bypassed using [scripted localisation](#), as a scripted localisation entry that points towards a key, the value of which contains nested localisation entry, will work as intended.

Inputting a dollar sign itself. This is done by doubling the dollar sign in localisation, such as `cost_tooltip: "This option costs $$100"`.

Nesting a strictly internal variable. This is particularly common within base game's localisation that corresponds to game mechanics rather than database entries, such as `confirm_cancel_national_focus_desc:0 "Are you sure you want to cancel the national focus $H$FOCUS_NAME$$!?"`. In these cases, the specified internal variable only exists within the scope of that localisation key and cannot be used anywhere else.

One notable usage of strictly internal variables is in country names, as these offer a variety of internal variables fetching the non-ideology name of the country and the overlord's name in either regular, ADJ, or DEF form, such as `COUNTRY_autonomy_collaboration_government:0 "$OVERLORDADJ$ $NONIDEOLOGY$"`.

**Namespaces**[\[编辑\]](#) [\[编辑源代码\]](#)

Namespaces refer to obtaining certain information from some scope to display in localisation. For example, getting the name of a country, the surname of a character, the ID of a state, and etc. A namespace is marked with the square brackets on either side as in `my_localisation_key: "[GetDateText]"`. By default, **there is no scope assumed**. A [scope](#) can be added, separated from the namespace with a dot, in order to let the game know from whom to obtain information, such as `my_localisation_key: "[QAT.GetRulingParty]"`, which'll result in the ruling party of the country QAT appearing in localisation. Any dual scope that can be used as a target may be used in localisation. [THIS](#) can be used in order to refer to the scope of where it's used, such as `effect_tooltip: "[ROOT.GetNameDefCap] declares war on [THIS.GetNameDef]"`.

Variables and event targets can be used within namespaces as well. For example, this grants the name of the capital state of OMA using the 'capital' variable: `my_localisation_key: "[OMA.capital.GetName]"`. A list of built-in variables that can be used can be seen in [the respective wiki page](#). Another common ones to use include 'owner' and 'controller' for states, such as `my_localisation_key: "Owner of South-West England: [123.owner.GetName]"`.

**Characters only exist within the scope of the country where they're recruited**, in versions prior to 1.12.8. What this means is that before scoping into the character, one must first scope into the country that they are assigned to, such as `current_name_of_fdr:0 "[USA.USA_franklin_delano_roosevelt.GetFullName]"`. If the character is marked with some other token (such as THIS or ROOT), this is unnecessary, but it is necessary for direct character IDs. Characters also support scoping to the `GetLeader` localisation function beforehand, such as `leader_pronoun: "[ROOT.GetLeader.GetHeShe]"` In this case, scoping into the country is still necessary.

Note that namespaces cannot be used everywhere. In the majority of the user interface, such as the names for wars or countries, they will not work properly, instead appearing exactly as in localisation, with the square brackets still visible. A list of locations where namespaces *do* work is:









| Location  | Notes   |
|-----------|---|
| Focuses   | Requires <code>dynamic = yes</code> within the focus to work correctly for the title, otherwise it generates a value at the game's start and it remains unchanging until the next reload (either of the savefile or the focus tree). Not required for the description, which always dynamically refreshes localisation. |
| Ideas     | Despite the fact that it works in ideas, it does not work within <a href="#">dynamic modifiers</a> .  |
| Decisions |   |



| Location                       | Notes   |
|--------------------------------|---|
| Events                         | At times it may be better to use <a href="#">completely different localisation keys within events</a> instead of using scripted localisation.   |
| Custom effect/trigger tooltips | Despite the fact that it works for <b>effects</b> and <b>triggers</b> , custom <b>modifier</b> tooltips do not support scripted localisation.   |
| Boolean flags                  | The names of the boolean flags, appearing in the tooltip when checked for them with triggers such as <code>has_country_flag = flag_name</code> or <code>has_character_flag = flag_name</code>                                   |
| Operations                     |   |
| Adjacency rule tooltips        | Referring to the tooltip that appears when hovering over a strait that's disabled for this country.   |
| Scripted GUI tooltips          | At times, this may not function properly with reloading in the debug mode. A restart can be required to make the scripted localisation work if <code>pdx_tooltip</code> was added to the interface element in the same session. |

The list may be incomplete, so something not being mentioned does not necessitate that localisation does not work there, but that does make it unlikely. Other localisation functions, not involving square brackets, do still work in this case, however.

Functions[[编辑](#) | [编辑源代码](#)]

Date variable in this case refers to a variable set to a date value. Using it with the current date can be done by using the `global.date` variable as `[?global.date.GetDateString]`.

| Name                       | Scope                                     | Example   | Description  |
|----------------------------|---|---|--|
| GetDateText                | Any                                       | [GetDateText]   | Gets the date in the format of "HH:00, DD Month, YYYY", such as "12:00, 1 January, 1936".  |
| GetDate                    | Any                                       | [GetDate]   | Gets the date in the format of YYYY.MM.DD.HH, such as 1936.1.1.12.   |
| GetMonth                   | Any                                       | [GetMonth]  | Gets the current month.  |
| GetYear                    | Any                                       | [GetYear]   | Gets the current year.   |
| GetName                    | Country, state, character, operative, ace | [GER.GetName]<br>[123.GetName]<br>[POL.POL_character.GetName] | Gets the name of the country, the name of the state, or the name of the character. For aces, only gets the first name: see GetFullName.  |
| GetTag                     | Country                                   | [GER.GetTag]  | Puts the tag of the country into localisation. Particularly useful for <a href="#">Meta effects</a> . If there is a non-ideology name for the country, this can result in that showing up in localisation in some cases. |
| GetLeader                  | Country                                   | [POL.GetLeader]   | Gets the name of the leader of the country.  |
| GetManpower                | Country                                   | [ENG.GetManpower]   | Gets the total population of the country, including civilians.   |
| GetFactionName             | Country                                   | [SOV.GetFactionName]  | Gets the name of the faction that the country is located in.   |
| GetAgency                  | Country                                   | [FRA.GetAgency]   | Gets the name of the country's intelligence agency.  |
| GetFlag                    | Country                                   | [GER.GetFlag]   | Gets the current flag of the country.  |
| GetNameWithFlag            | Country                                   | [ITA.GetNameWithFlag]   | Gets the current flag of the country and adds the name afterwards.   |
| GetNameDef                 | Country                                   | [SPR.GetNameDef]  | Gets the DEF name of the country, primarily used to tell if "the" is needed to be put in the beginning.  |
| GetNameDefCap              | Country                                   | [POR.GetNameDefCap]   | Gets the DEF name of the country, primarily used to tell if "The" is needed to be put in the beginning, capitalising the first letter as well.   |
| GetAdjective               | Country                                   | [YUG.GetAdjective]  | Gets the adjective for the country, such as  <a href="#">British</a> .  |
| GetAdjectiveCap            | Country                                   | [CAN.GetAdjectiveCap]   | Gets the adjective for the country, capitalising the first letter.   |
| GetOldName                 | Country                                   | [RAJ.GetOldName]  | Gets the name of the country without any cosmetic tags applied.  |
| GetOldNameDef              | Country                                   | [MAL.GetOldNameDef]   | Gets the DEF name of the country, primarily used to tell if "the" is needed to be put in the beginning, without any cosmetic tags applied.   |
| GetOldNameDefCap           | Country                                   | [AST.GetOldNameDefCap]  | Gets the DEF name of the country, primarily used to tell if "The" is needed to be put in the beginning, without any cosmetic tags applied, capitalising the first letter.  |
| GetOldAdjective            | Country                                   | [NZL.GetOldAdjective]   | Gets the adjective for the country without any cosmetic tags applied.  |
| GetOldAdjectiveCap         | Country                                   | [HAW.GetOldAdjectiveCap]                                      | Gets the adjective for the country without any cosmetic tags applied, capitalising the first letter.   |
| GetNonIdeologyName         | Country                                   | [JAP.GetNonIdeologyName]                                      | Gets the non-ideology name of the country, defined with TAG:0 "Country name"   |
| GetNonIdeologyNameDef      | Country                                   | [SAU.GetNonIdeologyNameDef]                                   | Gets the non-ideology DEF name of the country, primarily used to tell if "the" is needed to be put in the beginning.   |
| GetNonIdeologyNameDefCap   | Country                                   | [SWE.GetNonIdeologyNameDefCap]                                | Gets the non-ideology DEF name of the country, primarily used to tell if "The" is needed to be put in the beginning, capitalising the first letter.  |
| GetNonIdeologyAdjective    | Country                                   | [DEN.GetNonIdeologyAdjective]                                 | Gets the non-ideology adjective for the country.   |
| GetNonIdeologyAdjectiveCap | Country                                   | [NOR.GetNonIdeologyAdjectiveCap]                              | Gets the non-ideology adjective for the country, capitalising the first letter.  |
| GetPartySupport            | Country                                   | [ICE.GetPartySupport]   | Gets the percentage of the ruling party, on the scale from 0 to 100. Does not have the % symbol in the end.  |
| GetLastElection            | Country                                   | [ROOT.GetLastElection]  | Gets the date when the last country's election occurred in the "HH:00, DD Month, YYYY" format, such as "01:00, 1 January, 1936".   |
| GetRulingParty             | Country                                   | [HOL.GetRulingParty]  | Gets the short name of the party ruling over the country.  |
| GetRulingPartyLong         | Country                                   | [BEL.GetRulingPartyLong]                                      | Gets the long name of the party ruling over the country.   |
| GetRulingIdeology          | Country                                   | [LUX.GetRulingIdeology]                                       | Gets the name of the country's ideology group, in adjective form.  |
| GetRulingIdeologyNoun      | Country                                   | [GER.GetRulingIdeologyNoun]                                   | Gets the name of the country's ideology group, in noun form.   |
| GetCommunistParty          | Country                                   | [HUN.GetCommunistParty]                                       | Gets the name of the  <a href="#">Communist</a> party.  |
| GetDemocraticParty         | Country                                   | [AUS.GetDemocraticParty]                                      | Gets the name of the  <a href="#">Democratic</a> party.   |
| GetFascistParty            | Country                                   | [CZE.GetFascistParty]   | Gets the name of the  <a href="#">Fascist</a> party.  |
| GetNeutralParty            | Country                                   | [ROM.GetNeutralParty]   | Gets the name of the  <a href="#">Non-aligned</a> party.  |
| GetCommunistLeader         | Country                                   | [BUL.GetCommunistLeader]                                      | Gets the name of the leader of the country's  <a href="#">Communist</a> party.  |
| GetDemocraticLeader        | Country                                   | [GRE.GetDemocraticLeader]                                     | Gets the name of the leader of the country's  <a href="#">Democratic</a> party.   |
| GetFascistLeader           | Country                                   | [ALB.GetFascistLeader]  | Gets the name of the leader of the country's  <a href="#">Fascist</a> party.  |
| GetNeutralLeader           | Country                                   | [TUR.GetNeutralLeader]  | Gets the name of the leader of the country's  <a href="#">Non-aligned</a> party.  |
| GetID                      | State                                     | [123.GetID]   | Gets the ID of the state. Particularly useful for <a href="#">Meta effects</a> .   |
| GetCapitalVictoryPointName | State                                     | [540.GetCapitalVictoryPointName]                              | Gets the name of the capital victory point (i.e. the province with the largest amount of victory points) of the state.   |

| Name                 | Scope          | Example                                  | Description  |
|----------------------|----------------|--|--|
| GetSheHe             | Character      | [PRU.GetLeader.GetSheHe]                 | Results in either "she" or "he" depending on the gender of the character, beginning with lowercase letters.  |
| GetSheHeCap          | Character      | [MEX.MEX_character.GetSheHeCap]          | Results in either "She" or "He" depending on the gender of the character, beginning with uppercase letters.  |
| GetHerHim            | Character      | [BRA.BRA_character.GetHerHim]            | Results in either "her" or "him" depending on the gender of the character, beginning with lowercase letters.   |
| GetHerHimCap         | Character      | [ARG.ARG_character.GetHerHimCap]         | Results in either "Her" or "Him" depending on the gender of the character, beginning with uppercase letters.   |
| GetHerHis            | Character      | [CHI.CHI_character.GetHerHis]            | Results in either "her" or "his" depending on the gender of the character, beginning with lowercase letters.   |
| GetHerHisCap         | Character      | [CHL.CHL_character.GetHerHisCap]         | Results in either "Her" or "His" depending on the gender of the character, beginning with uppercase letters.   |
| GetHersHis           | Character      | [PRC.PRC_character.GetHersHis]           | Results in either "hers" or "his" depending on the gender of the character, beginning with lowercase letters.  |
| GetHersHisCap        | Character      | [YUN.YUN_character.GetHersHisCap]        | Results in either "Hers" or "His" depending on the gender of the character, beginning with uppercase letters.  |
| GetHerselfHimself    | Character      | [GXC.GXC_character.GetHerselfHimself]    | Results in either "herself" or "himself" depending on the gender of the character, beginning with lowercase letters.   |
| GetHerselfHimselfCap | Character      | [XSM.XSM_character.GetHerselfHimselfCap] | Results in either "Herself" or "Himself" depending on the gender of the character, beginning with uppercase letters.   |
| GetIdeology          | Country leader | [SIK.GetLeader.GetIdeology]              | Gets the ideology type assigned to the country leader, such as liberalism or centrism.   |
| GetIdeologyGroup     | Country leader | [MAN.MAN_character.GetIdeologyGroup]     | Gets the ideology group assigned to the country leader, such as  <a href="#">Democratic</a> or  <a href="#">Non-aligned</a> .  |
| GetRank              | Unit leader    | [MEN.MEN_character.GetRank]              | Gets the rank of the unit leader, such as Corps Commander or Field Marshal.  |
| GetCodeName          | Operative      | [THIS.GetCodeName]                       | Gets the codename of the operative.  |
| GetCallsign          | Operative      | [THIS.GetCallsign]                       | Gets the callsign of the operative.  |
| GetSurname           | Ace            | [LIB.GetLeader.GetSurname]               | Gets the last name of the ace.   |
| GetFullName          | Ace            | [ECU.ECU_character.GetFullName]          | Gets the full name of the ace, with both first and last names.   |
| GetWing              | Ace            | [THIS.GetWing]                           | Gets the wing that the ace is assigned to.   |
| GetWingShort         | Ace            | [THIS.GetWingShort]                      | Gets the shortened name of the wing that the ace is assigned to.   |
| GetAceType           | Ace            | [THIS.GetAceType]                        | Gets the type of the ace.  |
| GetMissionRegion     | Ace            | [THIS.GetMissionRegion]                  | Gets the region that the ace is assigned to.   |
| GetTokenKey          | Any variable   | [?global.variablename.GetTokenKey]       | Gets the token of the variable, such as infantry_equipment, instead of the internal ID. Particularly useful for <a href="#">Meta effects</a> .   |
| GetTokenLocalizedKey | Any variable   | [?GER.variablename.GetTokenLocalizedKey] | Gets the localised name of the variable, such as "Infantry Equipment". Useful for advanced abstraction techniques, as it can be used to approximate arbitrary string interpolation in <a href="#">Meta effects</a> by applying to <a href="#">token variables</a> which reference dummy objects, such as empty ideas, for which arbitrary localisation strings have been defined. Being able to pass around token variables that resolve to localised dummy objects is the closest it is currently possible to get to passing around and manipulating strings directly. This can enable all sorts of useful tricks and techniques, and you can even concatenate two dummy token's localisation values to form a new token string which is then pasted into a token variable in a <a href="#">Meta effect</a> (as long as the resulting token string is in fact a valid existing token, otherwise the result is just an integer 0). In effect, this lets you derive a previously-unknown token variable from another already-known token variable, according to a template provided by another already-known token variable, provided the destination token is some prefixed or suffixed templated variation of the source token. |
| GetString            | Date variable  | [?global.date.GetString]                 | Gets the date in the format of "HH:00, DD Month, YYYY", such as "12:00, 1 January, 1936".  |
| GetStringShortMonth  | Date variable  | [?global.date.GetStringShortMonth]       | Gets the date in the format of "HH:00, DD Mon., YYYY", such as "12:00, 1 Jan., 1936".  |
| GetStringNoHour      | Date variable  | [?global.date.GetStringNoHour]           | Gets the date in the format of YYYY.MM.DD, such as 1936.1.1.   |
| GetStringNoHourLong  | Date variable  | [?global.date.GetStringNoHourLong]       | Gets the date in the format of "DD Month, YYYY", such as "1 January, 1936".  |

**Scripted localisation**[\[编辑 | 编辑源代码\]](#)

Scripted localisation is similar to creating your own namespaces. It is defined in /Hearts of Iron IV/common/scripted\_localisation/\*.txt and used in localisation in a similar manner to namespaces. However, unlike namespaces, by default the current scope is assumed when using scripted localisation, making scoping optional. An example of a scripted localisation definition is:

```
defined_text = {
    name = mod_scripted_loc
    text = {
        trigger = {
            tag = FRA
        }
        localization_key = FRA_localization_key
    }
    text = {
        localization_key = mod_localization_key
    }
}
```

This consists of these entries:

```
name = my_scripted_loc - The name of the scripted localisation used to refer to it within regular localisation.

text = { ... } - A possible choice for localisation. The game picks the topmost text = { ... } block to serve as the localisation's output. In particular, these are used in the example:
trigger = { ... } is the trigger block evaluated for the checked scope, using this scripted localisation if true. Temporary variables set in this trigger block will remain set when displaying the localisation key, allowing math to be done between different variables or using scripted localisation recursively (such as to display every element of an array).

localization_key = my_loc_key (Note the American spelling with Z rather than the British spelling with S used elsewhere) assigns the localisation key to be used with this scripted localisation option. This does not support dynamic localisation directly within (e.g. localization_key = "my_loc_key_[?my_var]"), however the contents of localisation keys do support dynamic localisation.

The example above will show the FRA_localization_key localisation key for France and the mod_localization_key one otherwise as a backup. The first localization key that meets the triggers will be
```

used. In localisation, that example can be used as

```
some_localisation: "[mod_scripted_loc]"
FRA_localization_key: "France-exclusive localisation"
mod_localization_key: "Generic localisation"
```

Scripted localisation also allows randomisation of the localisation key that would be chosen, using [random\\_list](#). For example, the following code will give a 60% and a 40% chance respectively for mod\_localization\_key\_1 or mod\_localization\_key\_2 to be chosen when this scripted localisation entry is used:

```
defined_text = {
    name = mod_scripted_loc
    text = {
        random_list = {
            30 = { localization_key = mod_localization_key_1 }
            20 = { localization_key = mod_localization_key_2 }
        }
    }
}
```

**References**[\[编辑 | 编辑源代码\]](#)

<sup>[1]</sup> [https://twitter.com/Martin\\_Anward/status/1039175213773144066](https://twitter.com/Martin_Anward/status/1039175213773144066)