

Pluralization in Source 2

Source 2 provides a way to handle plural forms for all the languages supported by Steam.

The plural forms required by the grammar of each language is condensed into a single token. Source 2 is able to pick the correct form depending on the quantity the token is referring to, as in the example below:

"DOTA_TrophyUnits_Challenges:p"

"%s1 Challenge#%s1 Challenges"

- The token name includes the **"p"** suffix to indicate that a multi-plural form is expected in the token value.
- **"#"** separates each plural form.
- **%s1** is a variable representing a quantity.

%s1 Challenge#%s1 Challenges

Form 0 Form 1

English has two plural forms: **form 0** is for singular and **form 1** for plural.

Depending on the value of %s1, the string will be rendered with form 0 or form 1:

"1 Challenge"

"2 Challenges"

Note that the system works with positive numbers including decimals.



1. All the plural forms specified for a language need to be present in the token value.
E.g although **fish** has the same form in singular and plural in English, the token value shows two forms because English is expected to provide a form 0 and a form 1: **"%s1 fish#%s1 fish"**
2. Languages with only one form don't need to use a separator:
e.g. Korean: **"DOTA_TrophyUnits_Challenges:p"** **"도전 과제 %s1 개"**

The table below provides a reference to determine how many forms the system expects per language:

Plural Forms per language

Language	Plural forms
Brazilian Portuguese	Form 0 - is within [0;2[including decimal numbers Form 1 - everything else: [2;∞[including decimal numbers
	"DOTA_TrophyUnits_Challenges:p" "%s1 desafios# #%s1 desafios"
Bulgarian	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 предизвикателство# #%s1 предизвикателства"
Czech	form 0 - is 1: 1 form 1 - is 2-4: 2, 3, 4 form 2 - every other natural integer: 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ... form 3 - decimal numbers
	"DOTA_TrophyUnits_Challenges:p" "%s1 výzva# #%s1 výzvy# #%s1 výzev# #%s1 výzvy"
Danish	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 udfordring# #%s1 udfordringer"
Dutch	form 0 - is 1 or decimal number in]0;2[with one '1' and any number of '0' as decimals: 1, 1.001 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 uitdaging# #%s1 uitdagingen"
English	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 Challenge# #%s1 Challenges"
Finnish	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 haaste# #%s1 haastetta"
French	Form 0 - is within [0;2[including decimal numbers Form 1 - everything else: [2;∞[including decimal numbers
	"DOTA_TrophyUnits_Challenges:p" "%s1 défi# #%s1 défis"
German	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 Herausforderung# #%s1 Herausforderungen"
Greek	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 πρόκληση# #%s1 προκλήσεις"

Hungarian	form 0 - is 1 and any decimal number: 1, 2.1 form 1 - everything else: 0, 1, 2, 3, 4, 5, 6, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 kihívás# #%s1 kihívás"
Italian	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 sfida# #%s1 sfide"
Japanese	form 0 - everything including decimal numbers.
	"DOTA_TrophyUnits_Points:p" "%s1 ポイント"
Korean	form 0 - everything including decimal numbers.
	"DOTA_TrophyUnits_Challenges:p" "도전 과제 %s1 개"
Latin American Spanish	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 desafío# #%s1 desafíos"
Norwegian	form 0 - is 1: 1 form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 utfordring# #%s1 utfordringer"
Polish	form 0 - is 1: 1 form 1 - ends in 2-4, excluding 12-14: 2, 3, 4, 22, 23, 24, 32, 33, 34, 42, 43, 44, 52, 53, 54, 62, 63, 64, 72, 73, 74, 82, 83, 84, 92, 93, 94, 102, 103, 104, 122, 123, 124, 132, 133, 134, 142, 143, 144, 152, 153, 154, 162, 163, 164, 172, 173, 174, 182, 183, ... form 2 - every other natural integer: 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 25, 26, 27, 28, 29, 30, 31, 35, 36, 37, 38, 39, 40, 41, 45, 46, 47, 48, 49, 50, 51, 55, 56, 57, 58, 59, 60, 61, 65, 66, 67, 68, ... form 3 - all decimal numbers
	"DOTA_TrophyUnits_Challenges:p" "%s1 wyzwanie# #%s1 wyzwania# #%s1 wyzwania# #%s1 wyzwania"
Portuguese	form 0 - is 1 or 1.0: 1 form 1 - everything else including all decimal numbers except 1.0: 1.1, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 utfordring# #%s1 utfordringer"
Romanian	form 0 - is 1: 1 form 1 - is 0 or ends in 01-19, excluding 1: 0, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, ... form 2 - everything else: 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, ...
	"DOTA_TrophyUnits_Challenges:p" "%s1 provocare# #%s1 provocări # #%s1 de provocări"

Russian	<p>form 0: ends in 1, excluding 11: 1, 21, 31, 41, 51, 61, 71, 81, 91, 101, 121, 131, 141, 151, 161, 171, 181, 191, 201, 221, 231, 241, 251, 261, 271, 281, 291, ...</p> <p>form 1: ends in 2-4, excluding 12-14: 2, 3, 4, 22, 23, 24, 32, 33, 34, 42, 43, 44, 52, 53, 54, 62, 63, 64, 72, 73, 74, 82, 83, 84, 92, 93, 94, 102, 103, 104, 122, 123, 124, 132, 133, 134, 142, 143, 144, 152, 153, 154, 162, 163, 164, 172, 173, 174, 182, 183, ...</p> <p>form 2: Everything not covered by forms 0, 1, 3, 4: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 26, 27, 28, 29, 30, 35, 36, 37, 38, 39, 40, 45, 46, 47, 48, 49, 50, 55, 56, 57, 58, 59, 60, 65, 66, 67, 68, 69, 70, 75, 76, ..., 100, ..., 112, 113, ..., 212, 213...</p> <p>form 3: zero or ends in 000, 000,000, 000,000,000... e.g. 0... 1000, 2000, 3000, ... 11,000, 12,000, 13,000 ... 21,000, ... 32,000, ... 45,000, ..., 1,000,000, 2,000,000, 3,000,000 ... 11,000,000, 12,000,000... 21,000,000, ... 38,000,000, ..., 1,000,000,000, 2,000,000,000, 3,000,000,000 ... 11,000,000,000, ... 27,000,000,000, ... 39,000,000,000, ...</p> <p>form 4: All decimal numbers</p>
	"DOTA_TrophyUnits_Challenges:p" "%s1 испытание# #%s1 испытания# #%s1испытаний# #%s1испытаний# #%s1испытания"
Simplified Chinese*	<p>form 0 - is [0;1]</p> <p>form 1 - is [1;∞[</p>
	"DOTA_TrophyUnits_Challenges:p" "%s1 项挑战# #%s1 项挑战"
	<i>*Chinese generally doesn't have plurals but pronouns do change based on quantity so we model that as Chinese having two variant forms. For all cases other than pronouns, where pluralization doesn't apply, both variants need to be present but would have the same text.</i>
Spanish	<p>form 0 - is 1: 1</p> <p>form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...</p>
	"DOTA_TrophyUnits_Challenges:p" "%s1 desafío# #%s1 desafios"
Swedish	<p>form 0 - is 1: 1</p> <p>form 1 - everything else including all decimal numbers: 1.0, 0, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...</p>
	"DOTA_TrophyUnits_Challenges:p" "%s1 utmaning# #%s1 utmaningar"
Traditional Chinese*	<p>form 0 - is [0;1]</p> <p>form 1 - is [1;∞[</p>
	"DOTA_TrophyUnits_Challenges:p" "已完成 %s1 項挑戰# #已完成 %s1 項挑戰"
	<i>*Chinese generally doesn't have plurals but pronouns do change based on quantity so we model that as Chinese having two variant forms. For all cases other than pronouns, where pluralization doesn't apply, both variants need to be present but would have the same text.</i>
Thai	form 0 - everything including decimal numbers.
	"DOTA_TrophyUnits_Challenges:p" "%s1 การท้าทาย"
Turkish	<p>form 0 - is 1 and any decimal number: 1, 2.1</p> <p>form 1 - everything else: 0, 1, 2, 3, 4, 5, 6, ...</p>
	"DOTA_TrophyUnits_Challenges:p" "%s1 Mücadele# #%s1 Mücadele"

Ukrainian	<p>form 0: ends in 1, excluding 11: 1, 21, 31, 41, 51, 61, 71, 81, 91, 101, 121, 131, 141, 151, 161, 171, 181, 191, 201, 221, 231, 241, 251, 261, 271, 281, 291, ...</p> <p>form 1: ends in 2-4, excluding 12-14: 2, 3, 4, 22, 23, 24, 32, 33, 34, 42, 43, 44, 52, 53, 54, 62, 63, 64, 72, 73, 74, 82, 83, 84, 92, 93, 94, 102, 103, 104, 122, 123, 124, 132, 133, 134, 142, 143, 144, 152, 153, 154, 162, 163, 164, 172, 173, 174, 182, 183, ...</p> <p>form 2: Everything not covered by forms 0, 1, 3, 4: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 26, 27, 28, 29, 30, 35, 36, 37, 38, 39, 40, 45, 46, 47, 48, 49, 50, 55, 56, 57, 58, 59, 60, 65, 66, 67, 68, 69, 70, 75, 76, ..., 100, ..., 112, 113, ..., 212, 213...</p> <p>form 3: zero or ends in 000, 000,000, 000,000,000... e.g. 0... 1000, 2000, 3000, ... 11,000, 12,000, 13,000 ... 21,000, ... 32,000, ... 45,000, ..., 1,000,000, 2,000,000, 3,000,000 ... 11,000,000, 12,000,000... 21,000,000, ... 38,000,000, ..., 1,000,000,000, 2,000,000,000, 3,000,000,000 ... 11,000,000,000, ... 27,000,000,000, ... 39,000,000,000, ...</p> <p>form 4: All decimal numbers</p>
	"DOTA_TrophyUnits_ContractsFilled:p" "%s1 контракт# #%s1 контракти# #%s1 контрактів# #%s1 контрактів# #%s1 контракту"
Vietnamese	form 0 - everything including decimal numbers.
	"DOTA_TrophyUnits_Challenges:p" "%s1 thử thách"