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Information and documentation — Conversion of Greek characters into Latin characters

*Information et documentation — Conversion des caractères grecs en
caractères latins*



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ISO 843:1997(E)**Foreword**

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 843 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 2, *Conversion of written languages*.

It cancels and replaces ISO Recommendation R 843:1968, of which it constitutes a technical revision.

Annex A forms an integral part of this International Standard. Annexes B and C are for information only.

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INFORMATION AND DOCUMENTATION - CONVERSION OF GREEK CHARACTERS INTO LATIN CHARACTERS

1 SCOPE

This International Standard establishes a system for the transliteration and/or transcription of Greek characters into Latin characters. This system provides for two sets of rules, each constituting a type of conversion, which are:

- Type 1, transliteration of Greek characters into Latin characters
- Type 2, transcription of Greek characters into Latin characters

This system applies to the characters of the Greek script, independent of the period in which it is or was used, i.e. it applies to monotoniko and polytoniko scripts from all periods of Classic or Modern Greek (archaic, alexandrian, hellenistic, byzantine, katharevousa, dimotiki etc.) as well as any other form of writing using the Greek script.

Definitions and explanations for the terms used (transliteration, transcription etc.) appear in Annex A.

This International Standard does not strictly define which type of conversion shall be used in an application. An application that needs some kind of mapping of Greek characters into Latin characters can choose one, and only one, of these types for a specific purpose. The application must explicitly declare the type adopted.

This International Standard, however, recommends a preferable way of using the various types of conversion:

- Type 1 (transliteration) can be used in information exchange of bibliographic references, directory services and cases where the original text may be unavailable but still needs to be reconstituted. This type can be used in every case that requires the unique conversion of the transliterated word to its original form (Greek characters) by persons not knowing the Greek language or by machines (e.g. from information technology applications, telematic services and others from the area of communications).

- Type 2 (transcription) can be used in identity cards, passports, road signs, map citations and other cases where the correct pronunciation of the Greek word takes precedence over the need for reconstitution of the original form. In cases like these, other means of ensuring the relationship between the original and the converted word can be used.

A table showing one method for reversible transcription is given in Annex B (Informative). Other methods for reversible transcription may also be used.

The user should be aware that ordering problems may occur as a result of the transliteration/transcription process.

2 CHARACTER REPERTOIRES INVOLVED IN THE CONVERSION PROCESS

In this International Standard two character repertoires are identified:

- a. The complete graphic character repertoire used in any form of writing of the Greek script. This repertoire constitutes the collection of all non-combined characters that appear in Tables 9, 33 and 34 of ISO/IEC 10646-1:1993 plus 6 characters (Stigma, Digamma, Koppa, Sampi, Byzantino/Lunate Sigma and Yot) from Table 10 and one character (dialytika) from Table 8 of the International Standard ISO/IEC 10646-1 : 1993.
- b. A graphic character repertoire used by the Latin script. This includes graphic characters that are in usage in many Latin-oriented languages. The Latin characters are derived from table 1 and table 2 of ISO/IEC 10646-1: 1993. The character "Combining macron", derived from Table 8 of the ISO/IEC 10646-1, can be used in certain applications. (An alternative source for the Latin repertoire is ISO/IEC 8859-1).

The graphical representation of Greek and Latin characters used in the transliteration / transcription tables is indicative. The correct representation is beyond the purpose of this International Standard.

The references mentioned do not impose any requirements on the coding of the characters, nor do they restrict the ability of those who perform the conversion (human beings or machines) to handle more characters than those included in these two repertoires.

3 TRANSLITERATION AND TRANSCRIPTION TABLES

3.1 Transliteration and transcription of Alphabetical characters.

Table 1: Transliteration

	GREEK CHARACTER	LATIN CHARACTER
1	Α, α	A, a
2	Β, β	V, v
3	Γ, γ	G, g
4	Δ, δ	D, d
5	Ε, ε	E, e
6	Ζ, ζ	Z, z
7	Η, η	\bar{I} , \bar{i} or I^- , i^-
8	Θ, θ	TH, th
9	Ι, ι	I, i
10	Κ, κ	K, k
11	Λ, λ	L, l
12	Μ, μ	M, m
13	Ν, ν	N, n
14	Ξ, ξ	X, x
15	Ο, ο	O, o
16	Π, π	P, p
17	Ρ, ρ	R, r
18	Σ, σ, ς	S, s, s (2)
19	Τ, τ	T, t
20	Υ, υ	Y, y
21	Φ, φ	F, f
22	Χ, χ	CH, ch
23	Ψ, ψ	PS, ps
24	Ω, ω	\bar{O} , \bar{o} or O^- , o^-

Note 1 - Combinations of two or more characters are transliterated according to the provisions laid down for each independent character. The only exception to this rule for transliteration is the conversion of the Greek double vowels AY, av, EY, ev, OY, ov which are mapped into Latin as AU, au, EU, eu, OU, ou respectively.

Note 2 - The Greek character ς (σίγμα τελικό – sigma final) is transliterated into Latin s, the same as for the Greek character σ (σίγμα – sigma). The character σ is used at the beginning or in the middle of a word, while the character ς is used at the end of the word.

The transliterating medium (human or machine) should, when in the process of converting the transliterated text back to the original Greek text, read the character of the string that follows s. In cases where the Latin s is followed by an alphabetic character or hyphenation then the s is transliterated into σ. In any other case (for example when it is followed by a space, mark, symbol, etc.) the Latin s is transliterated into the Greek character ς.

Table 2: Transcription

GREEK CHARACTERS		LATIN CHARACTERS
1	2	3
Greek characters	Combinations of Greek characters	Transcription
1	A, α	A, a
2	(AI, αι) (8)	AI, ai
3	(AI, άι) (8)	AI, ai
4	(AI, αι̃) (8)	AI, aĩ
5	AY, αυ (3) (10)	AV, av
6	AY, αυ (4) (10)	AF, af
7	AY, αυ (9)	AY, ay
8	B, β	V, v
9	Γ, γ	G, g
10	ΓΓ, γγ	NG, ng
11	(ΓK, γκ) (8)	GK, gk
12	ΓΞ, γξ	NX, nx
13	ΓΧ, γχ	NCH, nch
14	Δ, δ	D, d
15	E, ε	E, e
16	(EI, ει) (8)	EI, ei
17	(EI, έι) (8)	EI, ei
18	(EI, ει̃) (8)	EI, eĩ
19	EY, ευ (3) (10)	EV, ev
20	EY, ευ (4) (10)	EF, ef
21	EY, ευ (9)	EY, ey
22	Z, ζ	Z, z
23	H, η	I, i
24	HY, ηυ (3) (10)	IV, iv
25	HY, ηυ (4) (10)	IF, if
26	(HY, ηυ) (9)	IY, iy
27	Θ, θ	TH, th
28	I, ι	I, i
29	K, κ	K, k
30	Λ, λ	L, l
31	M, μ	M, m
32	MI, μι (5) (7)	B, b
33	MI, μι (6)	MP, mp
34	N, ν	N, n
35	(NT, ντ) (8)	NT, nt
36	Ξ, ξ	X, x
37	O, ο	O, o
38	(OI, οι) (8)	OI, oi
39	(OI, όι) (8)	OI, oi
40	(OI, οι̃) (8)	OI, oĩ
41	OY, ου	OU, ou
42	(OY, ου) (9)	OY, oy
43	Π, π	P, p
44	P, ρ	R, r
45	Σ, σ, ς	S, s, s (2)
46	T, τ	T, t
47	Υ, υ	Y, y
48	(YI, υι) (8)	YI, yi
49	Φ, φ	F, f
50	X, χ	CH, ch
51	Ψ, ψ	PS, ps
52	Ω, ω	O, o

Notes to table 2

Note 3 - Used before the characters β, γ, δ, ζ, λ, μ, ν, ρ and all the vowels.

Note 4 - Used before the characters θ, κ, ξ, π, σ, τ, φ, χ, ψ and at the end of the word.

Note 5 - At the beginning of the word.

Note 6 - In the middle of the word.

Note 7 - At the end of the word.

Note 8 - The combinations of Greek characters, that are in parentheses, are presented in Table 2 only for clarification. They are converted according to the provisions laid down for each independent character.

Note 9 - They are converted according to the provisions laid down for each independent character when the vowel before υ has an accent or when the υ has dialytika.

Note 10 - In the conversion of the combinations αυ, ευ, ηυ, when they have an accent, the accent is transferred to the vowel (e.g. αυ, αφ, υν, υφ, υν, υφ).

General notes applying to both transliteration and transcription:

Note 11 - If the conversion of a Greek letter gives rise to a double capital in Latin which is followed by lowercase text (for example at the beginning of a sentence after a full stop mark) the second, third, etc. Latin capital letter may for aesthetic reasons be rendered in lowercase (e.g. **Chara** instead of **CH**ara, **Thalassa** instead of **TH**alassa, **Psari** instead of **PS**ari).

Note 12 - The converting medium must be aware that the special mark (macron) above or after the Latin characters is obligatory for the correct conversion of the character. However, the size of this special mark and its accurate graphical representation or position is not the subject of this International Standard. Use of another character to substitute macron where it is unavailable, is not prohibited but it is done at the user's risk.