STANDARDIZATION SECTOR OF ITU

## SERIES T: TERMINALS FOR TELEMATIC SERVICES

Non-latin coded character sets for telematic services

## Amendment 1

ITU-T Recommendation T. 52 - Amendment 1
(Previously CCITT Recommendation)

ITU-T T-SERIES RECOMMENDATIONS

## TERMINALS FOR TELEMATIC SERVICES

For further details, please refer to ITU-T List of Recommendations.

## FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (ITU). The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

Amendment 1 to ITU-T Recommendation T.52, was prepared by ITU-T Study Group 8 (1993-1996) and was approved by the WTSC (Geneva, October 9-18, 1996).

## NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## SUMMARY

In order to align the names of characters from Recommendation T. 52 to those of ISO/IEC 10646-1, and respecting the naming rules of T.52, some editorial changes are made. In this Amendment, the Greek supplementary set is placed by a new version offered by the Greek Administration.

# NON-LATIN CODED CHARACTER SETS <br> FOR TELEMATIC SERVICES 

## AMENDMENT 1

(Geneva, 1996)

1) "CCITT" shall be changed to "ITU-T" in all relevant places.
2) Paragraphs 7.1.3, 7.2.5, 7.3.3, 7.4.3, 7.5.3, 7.6.3, 7.7.3 ("Usage of the ... set") shall be deleted (also in CONTENTS).
3) In 1.1:

- (e) shall be deleted;
- (d) shall be (e); and "... base coding ..." shall be changed to "... Latin-based coding ...";
- (f) shall be (d);
- (g) shall be (f).

4) In 1.4:

- "... in accordance to ..." shall be changed to "... based on ..."
- "... consists..." shall be changed to "... consist ...".

5) $\quad$ In 2.1:

- "- CCITT Recommendation T. 50 ..." shall be changed to "CCITT Recommendation T.50, International Reference Alphabet (IRA) (formerly International Alphabet No. 5 or IA5) - Information technology -7-bit coded character set for information interchange, 1992";
_ "- CCITT Recommendation T. 51 ..." shall be changed to "CCITT Recommendation T.51, Latin-based coded character sets for telematic services, 1992 and its Amendment 1, 1995";
- "- CCITT draft Recommendation T. 53 ..., 1993" shall be changed to "- ITU-T Recommendation T. 53 ..., 1994";
- "- CCITT Recommendation T. 61 ... 1992" shall be deleted;
- "- CCITT Recommendation T. 101 ... 1990" shall be deleted.

6) $\quad$ In 2.2:

- "ISO 2022 ..., 1986" shall be changed to "ISO/IEC 2022 ..., 1994";
- "ISO 6429 ..." shall be changed to "ISO/IEC 6429 ...";
- "ISO/IEC 6937 ..., 1992" shall be changed to "ISO/IEC 6937 ..., 1994";
- "JTC1/SC2 ..." shall be deleted;
- Add "ISO/IEC 10646-1, Information technology - Universal Multiple-Octet Coded Character Set (UCS) - Part 1: Architecture and Basic Multilingual Plane, 1993."

In 4.1:

- Add "ITU-T International Telecommunication Union - Telecommunication Standardization Sector (replaces CCITT from 1 March 1993)".

In 6.3:

- Add the footnotes as in 8.4, as indicated in item 12) of this Amendment.

9) 

In 6.4:

- Delete the crossreference: "GREEK SMALL LETTER OMICRON WITH TONOS" with "CHN";
- Delete the crossreference: "GREEK SMALL LETTER FINAL SIGMA" with "JKN" and the corresponding NOTE in the table.


## After 7.4.2:

- Add a new "7.4.3 Structure of the Greek supplementary set" with the following text:
"The Greek supplementary set defined in this Recommendation is a 94-graphic character set to be used in either 7-bit or 8-bit environment."
- Add a new "7.4.4 Designation sequences of the Greek supplementary set" with the following text:
"The Greek supplementary set (Registration No. 70 Rev.) of graphic characters shall be designated using the following designation sequences:

ESC 02/08 06/02 Greek supplementary set (G0)
ESC 02/09 06/02 Greek supplementary set (G1)
ESC 02/10 06/02 Greek supplementary set (G2)
ESC 02/11 06/02 Greek supplementary set (G3)"
11) In 8.2:

- In the list of characters, all "THIS POSITION SHALL NOT BE USED" code points 02/00, 07/03 to 07/10 and 07/15 shall be changed to "(This position shall not be used)".

12) In 8.4 (and in 6.3):

| Code position | Present text | Change |
| :---: | :--- | :--- |
| $02 / 04$ | CYRILLIC CAPITAL LETTER IE <br> (Ukrainian) | add a footnote with the following text: <br> The name of this character in ISO/IEC 10646-1 is: <br> CYRILLIC CAPITAL LETTER <br> UKRAINIAN IE |
| $02 / 06$ | CYRILLIC CAPITAL LETTER I <br> (Byelorussian-Ukrainian) | add a footnote with the following text: <br> The name of this character in ISO/IEC 10646-1 is: <br> CYRILLIC CAPITAL LETTER <br> BYELORUSSIAN-UKRAINIAN I |
| $07 / 04$ | CYRILLIC SMALL LETTER IE <br> (Ukrainian) | add a footnote with the following text: <br> The name of this character in ISO/IEC 10646-1 is: <br> CYRILLIC SMALL LETTER UKRAINIAN IE |
| $07 / 06$ | CYRILLIC SMALL LETTER I <br> (Byelorussian-Ukrainian) | add a footnote with the following text: <br> The name of this character in ISO/IEC 10646-1 is: |
| CYRILLIC SMALL LETTER |  |  |
| BYELORUSSIAN-UKRAINIAN I |  |  |

13) $\quad$ In 8.5 :

- In the list of characters, all "This position shall not be used" code points $02 / 02$ to $02 / 12,02 / 14,02 / 15$, $07 / 00$ and $07 / 02$ to $07 / 15$ shall be changed to "(This position shall not be used)".

In 8.6:

- The title "The Greek primary set" shall be changed to "The Greek set";
- The table on page 66 shall be replaced with the following one:

| $\begin{gathered} \text { Bit } \\ \text { comb. } \end{gathered}$ | Name or description |
| :---: | :---: |
| 02/00 | (This position shall not be used) |
| 02/01 | EXCLAMATION MARK |
| 02/02 | QUOTATION MARK |
| 02/03 | NUMBER SIGN |
| 02/04 | CURRENCY SIGN |
| 02/05 | PERCENT SIGN |
| 02/06 | AMPERSAND |
| 02/07 | APOSTROPHE |
| 02/08 | LEFT PARENTHESIS |
| 02/09 | RIGHT PARENTHESIS |
| 02/10 | ASTERISK |
| 02/11 | PLUS SIGN |
| 02/12 | COMMA |
| 02/13 | HYPHEN, MINUS SIGN |
| 02/14 | PERIOD |
| 02/15 | SOLIDUS |
| 03/00 | DIGIT ZERO |
| 03/01 | DIGIT ONE |
| 03/02 | DIGIT TWO |
| 03/03 | DIGIT THREE |
| 03/04 | DIGIT FOUR |
| 03/05 | DIGIT FIVE |
| 03/06 | DIGIT SIX |
| 03/07 | DIGIT SEVEN |
| 03/08 | DIGIT EIGHT |
| 03/09 | DIGIT NINE |
| 03/10 | COLON |
| 03/11 | GREEK QUESTION MARK (Erotimatiko) |
| 03/12 | LESS-THAN SIGN |
| 03/13 | EQUALS SIGN |
| 03/14 | GREATER-THAN SIGN |
| 03/15 | QUESTION MARK |
| 04/00 | COMMERCIAL AT |
| 04/01 | GREEK CAPITAL LETTER ALPHA |
| 04/02 | GREEK CAPITAL LETTER BETA |
| 04/03 | GREEK CAPITAL LETTER GAMMA |
| 04/04 | GREEK CAPITAL LETTER DELTA |
| 04/05 | GREEK CAPITAL LETTER EPSILON |
| 04/06 | GREEK CAPITAL LETTER ZETA |
| 04/07 | GREEK CAPITAL LETTER ETA |
| 04/08 | GREEK CAPITAL LETTER THETA |
| 04/09 | GREEK CAPITAL LETTER IOTA |
| 04/10 | GREEK CAPITAL LETTER KAPPA |
| 04/11 | GREEK CAPITAL LETTER LAMDA |
| 04/12 | GREEK CAPITAL LETTER MU |
| 04/13 | GREEK CAPITAL LETTER NU |
| 04/14 | GREEK CAPITAL LETTER XI |
| 04/15 | GREEK CAPITAL LETTER OMICRON |


| $\begin{gathered} \text { Bit } \\ \text { comb. } \end{gathered}$ | Name or description |
| :---: | :---: |
| 05/00 | GREEK CAPITAL LETTER PI |
| 05/01 | GREEK CAPITAL LETTER RHO |
| 05/02 | (This position shall not be used) |
| 05/03 | GREEK CAPITAL LETTER SIGMA |
| 05/04 | GREEK CAPITAL LETTER TAU |
| 05/05 | GREEK CAPITAL LETTER UPSILON |
| 05/06 | GREEK CAPITAL LETTER PHI |
| 05/07 | GREEK CAPITAL LETTER CHI |
| 05/08 | GREEK CAPITAL LETTER PSI |
| 05/09 | GREEK CAPITAL LETTER OMEGA |
| 05/10 | (This position shall not be used) |
| 05/11 | LEFT SQUARE BRACKET |
| 05/12 | REVERSE SOLIDUS |
| 05/13 | RIGHT SQUARE BRACKET |
| 05/14 | CIRCUMFLEX ACCENT |
| 05/15 | LOW LINE |
| 06/00 | (This position shall not be used) |
| 06/01 | GREEK SMALL LETTER ALPHA |
| 06/02 | GREEK SMALL LETTER BETA |
| 06/03 | GREEK SMALL LETTER GAMMA |
| 06/04 | GREEK SMALL LETTER DELTA |
| 06/05 | GREEK SMALL LETTER EPSILON |
| 06/06 | GREEK SMALL LETTER ZETA |
| 06/07 | GREEK SMALL LETTER ETA |
| 06/08 | GREEK SMALL LETTER THETA |
| 06/09 | GREEK SMALL LETTER IOTA |
| 06/10 | GREEK SMALL LETTER KAPPA |
| 06/11 | GREEK SMALL LETTER LAMDA |
| 06/12 | GREEK SMALL LETTER MU |
| 06/13 | GREEK SMALL LETTER NU |
| 06/14 | GREEK SMALL LETTER XI |
| 06/15 | GREEK SMALL LETTER OMICRON |
| 07/00 | GREEK SMALL LETTER PI |
| 07/01 | GREEK SMALL LETTER RHO |
| 07/02 | GREEK SMALL LETTER FINAL SIGMA |
| 07/03 | GREEK SMALL LETTER SIGMA |
| 07/04 | GREEK SMALL LETTER TAU |
| 07/05 | GREEK SMALL LETTER UPSILON |
| 07/06 | GREEK SMALL LETTER PHI |
| 07/07 | GREEK SMALL LETTER CHI |
| 07/08 | GREEK SMALL LETTER PSI |
| 07/09 | GREEK SMALL LETTER OMEGA |
| 07/10 | (This position shall not be used) |
| 07/11 | LEFT CURLY BRACKET |
| 07/12 | VERTICAL LINE |
| 07/13 | RIGHT CURLY BRACKET |
| 07/14 | MACRON |
| 07/15 | (This position shall not be used) |

- All the above characters shall be added to clause 6 and the replaced old ones shall be deleted from clause 6.
- P. 67 shall be replaced by the following one:

Name:
Greek supplementary set
Registration:
Number of characters:

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94

|  |  |  |  | $\mathrm{b}_{7}$ | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\mathrm{b}_{6}$ | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
|  |  |  |  | $\mathrm{b}_{5}$ | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| $\mathrm{b}_{4}$ | $\mathrm{b}_{3}$ | $\mathrm{b}_{2}$ | $\mathrm{b}_{1}$ |  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 0 | 0 | 0 | 00 |  |  |  | $\bigcirc$ | . | - | $\Omega$ | K |
| 0 | 0 | 0 | 1 | 01 |  |  | i | $\pm$ | - | 1 | Æ | æ |
| 0 | 0 | 1 | 0 | 02 |  |  | ¢ | 2 | , | (B) | Đ | d |
| 0 | 0 | 1 | 1 | 03 |  |  | $£$ | 3 | $\wedge$ | (C) | a | ð |
| 0 | 1 | 0 | 0 | 04 |  |  | \$ | $\times$ | $\sim$ | TM | H | h |
| 0 | 1 | 0 | 1 | 05 |  |  | ¥ | $\mu$ | - | $\rho$ |  | 1 |
| 0 | 1 | 1 | 0 | 06 |  |  | \# | $\pi$ | $\checkmark$ |  | IJ | ij |
| 0 | 1 | 1 | 1 | 07 |  |  | $\oint$ | $\bullet$ | - |  | L | 1. |
| 1 | 0 | 0 | 0 | 08 |  |  | a | $\div$ | .. |  | L | 1 |
| 1 | 0 | 0 | 1 | 09 |  |  | 6 | , |  |  | Ø | $\emptyset$ |
| 1 | 0 | 1 | 0 | 10 |  |  | '6 | , | o |  | CE | œ |
| 1 | 0 | 1 | 1 | 11 |  |  | < | > | 3 |  | o | $\beta$ |
| 1 | 1 | 0 | 0 | 12 |  |  | $\leftarrow$ | 1/4 |  | 1/8 | P | p |
| 1 | 1 | 0 | 1 | 13 |  |  | $\uparrow$ | $1 / 2$ | " | 3/8 | T | 毛 |
| 1 | 1 | 1 | 0 | 14 |  |  | $\rightarrow$ | 3/4 | $\checkmark$ | 5/8 | I | 1 |
| 1 | 1 | 1 | 1 | 15 |  |  | $\downarrow$ | $i$ | $\checkmark$ | 7/8 | ń |  |

- P. 68 shall be replaced by the following one:

| Bit <br> comb. | Name or description |
| :---: | :--- |
| $02 / 00$ | (This position shall not be used) |
| $02 / 01$ | INVERTED EXCLAMATION MARK |
| $02 / 02$ | CENT SIGN |
| $02 / 03$ | POUND SIGN |
| $02 / 04$ | DOLLAR SIGN |
| $02 / 05$ | YEN SIGN |
| $02 / 06$ | NUMBER SIGN |
| $02 / 07$ | SECTION SIGN |
| $02 / 08$ | CURRENCY SIGN |
| $02 / 09$ | LEFT SINGLE QUOTATION MARK |
| $02 / 10$ | LEFT DOUBLE QUOTATION MARK |
| $02 / 11$ | LEFT-POINTING DOUBLE ANGLE |
|  | QUOTATION MARK |
| $02 / 12$ | LEFTWARDS ARROW |
| $02 / 13$ | UPWARDS ARROW |
| $02 / 14$ | RIGHTWARDS ARROW |
| $02 / 15$ | DOWNWARDS ARROW |
| $03 / 00$ | DEGREE SIGN |
| $03 / 01$ | PLUS-MINUS SIGN |
| $03 / 02$ | SUPERSCRIPT TWO |
| $03 / 03$ | SUPERSCRIPT THREE |
| $03 / 04$ | MULTIPLICATION SIGN |
| $03 / 05$ | MICRO SIGN |
| $03 / 06$ | PILCROW SIGN |
| $03 / 07$ | MIDDLE DOT |
| $03 / 08$ | DIVISION SIGN |
| $03 / 09$ | RIGHT SINGLE QUOTATION MARK |
| $03 / 10$ | RIGHT DOUBLE QUOTATION MARK |
| $03 / 11$ | RIGHT-POINTING DOUBLE ANGLE |
| $03 / 12$ | QUOTATION MARK |
| $03 / 13$ | VULGAR FRACTION ONE QUARTER |
| $03 / 14$ | VULGAR FRACTION ONE HALF |
| $03 / 15$ | VULGAR FRACTION THREE QUARTERS |
| $04 / 00$ | COMBINING GREEK DIALYTIKA TONOS |
| $04 / 01$ | COMBINING GRAVE ACCENT (Varia) |
| $04 / 02$ | COMBINING ACUTE ACCENT (Oxia) |
| $04 / 03$ | COMBINING CIRCUMFLEX ACCENT |
| $04 / 04$ | COMBINING TILDE |
| $04 / 05$ | COMBINING MACRON |
| $04 / 06$ | COMBINING BREVE (Vrachy) |
| $04 / 07$ | COMBINING DOT ABOVE |
| $04 / 08$ | COMBINING DIAERESIS (Dialytika) |
| $04 / 09$ | (This position shall not be used) |
| $04 / 10$ | COMBINING RING ABOVE |
| $04 / 11$ | COMBINING CEDILLA |
| $04 / 12$ | (This position shall not be used) |
| $04 / 13$ | COMBINING DOUBLE ACUTE ACCENT |
| $04 / 14$ | COMBINING OGONEK |
| $04 / 15$ | COMBINING CARON |
| $05 / 00$ | HORIZONTAL BAR |
| $05 / 01$ | SUPERSCRIPT ONE |
| $05 / 02$ | REGISTERED SIGN |
|  |  |


| Bit comb. | Name or description |
| :---: | :---: |
| 05/03 | COPYRIGHT SIGN |
| 05/04 | TRADE MARK SIGN |
| 05/05 | EIGHTH NOTE |
| 05/06 | (This position shall not be used) |
| 05/07 | (This position shall not be used) |
| 05/08 | (This position shall not be used) |
| 05/09 | (This position shall not be used) |
| 05/10 | (This position shall not be used) |
| 05/11 | (This position shall not be used) |
| 05/12 | VULGAR FRACTION ONE EIGHTH |
| 05/13 | VULGAR FRACTION THREE EIGHTHS |
| 05/14 | VULGAR FRACTION FIVE EIGHTHS |
| 05/15 | VULGAR FRACTION SEVEN EIGHTHS |
| 06/00 | OHM SIGN |
| 06/01 | LATIN CAPITAL LETTER Æ (ash) |
| 06/02 | LATIN CAPITAL LETTER ETH (Icelandic) |
| 06/03 | FEMININE ORDINAL INDICATOR |
| 06/04 | LATIN CAPITAL LETTER H WITH STROKE |
| 06/05 | (This position shall not be used) |
| 06/06 | LATIN CAPITAL LIGATURE IJ |
| 06/07 | LATIN CAPITAL LETTER L WITH MIDDLE DOT |
| 06/08 | LATIN CAPITAL LETTER L WITH STROKE |
| 06/09 | LATIN CAPITAL LETTER O WITH STROKE |
| 06/10 | LATIN CAPITAL LIGATURE © |
| 06/11 | MASCULIN ORDINAL INDICATOR |
| 06/12 | LATIN CAPITAL LETTER THORN (Icelandic) |
| 06/13 | LATIN CAPITAL LETTER T WITH STROKE |
| 06/14 | LATIN CAPITAL LETTER ENG (Sami) |
| 06/15 | LATIN SMALL LETTER N PRECEDED BY APOSTROPHE |
| 07/00 | LATIN SMALL LETTER KRA (Greenlandic) |
| 07/01 | LATIN SMALL LETTER $Æ$ (ash) |
| 07/02 | LATIN SMALL LETTER D WITH STROKE |
| 07/03 | LATIN SMALL LETTER ETH (Icelandic) |
| 07/04 | LATIN SMALL LETTER H WITH STROKE |
| 07/05 | LATIN SMALL LETTER DOTLESS I |
| 07/06 | LATIN SMALL LIGATURE IJ |
| 07/07 | LATIN SMALL LETTER L WITH MIDDLE DOT |
| 07/08 | LATIN SMALL LETTER L WITH STROKE |
| 07/09 | LATIN SMALL LETTER O WITH STROKE |
| 07/10 | LATIN SMALL LIGATURE E |
| 07/11 | LATIN SMALL LETTER SHARP S (German) |
| 07/12 | LATIN SMALL LETTER THORN (Icelandic) |
| 07/13 | LATIN SMALL LETTER T WITH STROKE |
| 07/14 | LATIN SMALL LETTER ENG (Sami) |
| 07/15 | (This position shall not be used) |

In 8.9:

- The code table shall be enlarged to fit the page size.

16) In Annex A the last entry (before NOTES):

- "(Note 3) Greek ... 96 ..." shall be replaced by

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Greek supplementary set of graphic characters

| $x$ | $x$ | $x$ | $x$ |
| :--- | :--- | :--- | :--- |

- "NOTE 3" shall be deleted.

17) In Annex B, in B.1:

- Add in the end the following text:
"This guideline is based on the ISO/IEC 10646-1 Annex K Character naming guidelines, and improved for consistency. Where the names of characters in this Recommendation differ from those in ISO/IEC 10646-1, a footnote is provided."


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