

ISO/IEC JTC 1/SC 2  
CODED CHARACTER SETS  
SECRETARIAT: JAPAN (JISC)

**DOC TYPE:** Text for FDAM ballot

**TITLE:** Revised Text of ISO/IEC 10646-1/FPDAM 28, Universal Multiple-Octet Coded Character Set (UCS) -- Part 1: Architecture and Basic Multilingual Plane -- AMENDMENT 28: Ideographic description characters

**SOURCE:** Mr. Bruce Paterson, Project Editor

**PROJECT:** JTC 1.02.18.01.28

**STATUS:** This document is submitted to ITTF for FDAM processing.

**ACTION ID:** FYI

**DUE DATE:**

**DISTRIBUTION:** P, O and L Members of ISO/IEC JTC 1/SC 2  
WG Conveners and Secretariats  
Secretariat, ISO/IEC JTC 1  
ISO/IEC ITTF

**NO. OF PAGES:** 8

**ACCESS LEVEL:** Defined

**WEB ISSUE #:** 063

Contact: Secretariat ISO/IEC JTC 1/SC 2 - Toshiko KIMURA  
IPJSJ/ITSCJ (Information Processing Society of Japan/Information Technology Standards Commission of Japan)\*  
Room 308-3, Kikai-Shinko-Kaikan Bldg., 3-5-8, Shiba-Koen, Minato-ku, Tokyo 105-0011 JAPAN  
Tel: +81 3 3431 2808; Fax: +81 3 3431 6493; E-mail: kimura@itscj.ipsj.or.jp  
\*A Standard Organization accredited by JISC

# Information technology — Universal Multiple-Octet Coded Character Set (UCS) —

## Part 1:

### Architecture and Basic Multilingual Plane

### AMENDMENT 28: Ideographic description characters

#### Page 11, Clause 19

*In the list of Block names, after the entry BRAILLE PATTERNS (see Amd. 16) insert new entries as follows:*

IDEOGRAPHIC DESCRIPTION CHARACTERS  
2FF0 - 2FFF

#### Page 15, Clause 25, Figure 4 (see Amendment 5)

*In Figure 4 (Amd.5), in the cross-hatched area for rows 28 to 2F, insert a zone corresponding to 2FF0 to 2FFF containing the words:*

Ideographic Description Characters

*centred on a white background.*


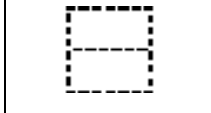

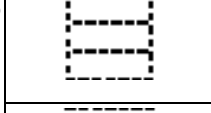
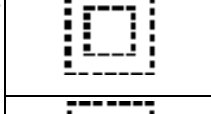
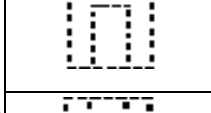
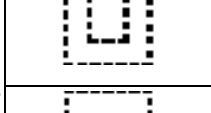
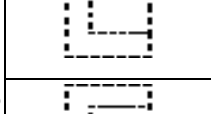
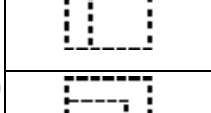
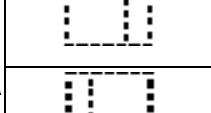
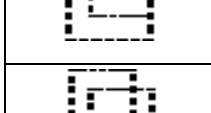
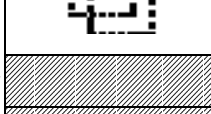
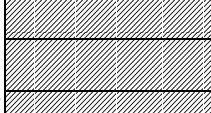



#### After page 113

*Add the following new tables titled:*

**Table 247 - Row 2F: IDEOGRAPHIC DESCRIPTION CHARACTERS**

**Table 247 - Row 2F: IDEOGRAPHIC DESCRIPTION CHARACTERS**

2FF

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

**G = 00**

**P = 00**

**Table 247 - Row 2F: IDEOGRAPHIC DESCRIPTION CHARACTERS**

dec	hex	Name
240	F0	IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO RIGHT
241	F1	IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO BELOW
242	F2	IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO MIDDLE AND RIGHT
243	F3	IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO MIDDLE AND BELOW
244	F4	IDEOGRAPHIC DESCRIPTION CHARACTER FULL SURROUND
245	F5	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM ABOVE
246	F6	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM BELOW
247	F7	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LEFT
248	F8	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER LEFT
249	F9	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER RIGHT
250	FA	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LOWER LEFT
251	FB	IDEOGRAPHIC DESCRIPTION CHARACTER OVERLAID
252	FC	(This position shall not be used)
253	FD	(This position shall not be used)
254	FE	(This position shall not be used)
255	FF	(This position shall not be used)

Group 00

dec	hex	Name

Plane 00

Row 2F

**Page 700, Annex A**

*In the list of collection numbers and names, after*

206 NUMERIC SHAPE SELECTORS

*insert a new entry as follows:*

207 IDEOGRAPHIC DESCRIPTION

CHARACTERS 2FF0 - 2FFF

*and in the the entry:*

251 SCRIPT-SPECIFIC FORMAT CHARACTERS

*amend the second line to read:*

Collections 204 - 207

**Page 708. Annex D - Alternate format characters**

*Add the following text at the end of the Annex.*

**D.3 Ideographic description characters**

An Ideographic Description Character (IDC) is a graphic character, which is used with a sequence of other graphic characters to form an Ideographic Description Sequence (IDS). Such a sequence may be used to describe an ideographic character which is not specified within this International Standard.

The IDS describes the ideograph in the abstract form. It is not interpreted as a composed character and does not imply any specific form of rendering.

NOTE - An IDS is not a character and therefore is not a member of the repertoire of ISO/IEC 10646.

**D.3.1 Syntax of an ideographic description sequence**

An IDS consists of an IDC followed by a fixed number of Description Components (DC). A DC may be any one of the following :

- a coded ideograph
- a coded radical
- another IDS

NOTE - The above description implies that any IDS may be nested within another IDS.

Each IDC has four properties as summarized in Table-D.1 below.

- the number of DCs used in the IDS that commences with that IDC,
- the definition of its acronym,
- the syntax of the corresponding IDS,
- the relative positions of the DCs in the visual representation of the ideograph that is being described in its abstract form.

The syntax of the IDS introduced by each IDC is indicated in the "IDS Acronym and Syntax" column of the table by the abbreviated name of the IDC (e.g. IDC-LTR) followed by the corresponding number of DCs, i.e. (D<sub>1</sub> D<sub>2</sub>) or (D<sub>1</sub> D<sub>2</sub> D<sub>3</sub>).

NOTE - An IDS is restricted to no more than 16 characters in length. Also no more than six ideographs and/or radicals occur between any two instances of an IDC character within an IDS.

**D.3.2 Individual definitions of the ideographic description characters****IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO RIGHT (2FF0):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> on the left and D<sub>2</sub> on the right.

**IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO BELOW (2FF1):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> above D<sub>2</sub>.

**IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO MIDDLE AND RIGHT (2FF2):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> on the left of D<sub>2</sub>, and D<sub>2</sub> on the left of D<sub>3</sub>.

**IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO MIDDLE AND BELOW (2FF3):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> above D<sub>2</sub>, and D<sub>2</sub> above D<sub>3</sub>.

**IDEOGRAPHIC DESCRIPTION CHARACTER FULL SURROUND (2FF4):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> surrounding D<sub>2</sub>.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM ABOVE (2FF5):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> above D<sub>2</sub>, and surrounding D<sub>2</sub> on both sides.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM BELOW (2FF6):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> below D<sub>2</sub>, and surrounding D<sub>2</sub> on both sides.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LEFT (2FF7):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> on the left of D<sub>2</sub>, and surrounding D<sub>2</sub> above and below.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER LEFT (2FF8):**

The IDS introduced by this character describes the abstract form of the ideograph with D<sub>1</sub> at the top left corner of D<sub>2</sub>, and partly surrounding D<sub>2</sub> above and to the left.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER RIGHT (2FF9):**

The IDS introduced by this character describes the abstract form of the ideograph with  $D_1$  at the top right corner of  $D_2$ , and partly surrounding  $D_2$  above and to the right.

**IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LOWER LEFT (2FFA):**

The IDS introduced by this character describes the abstract form of the ideograph with  $D_1$  at the bottom left corner of  $D_2$ , and partly surrounding  $D_2$  below and to the left.

**IDEOGRAPHIC DESCRIPTION CHARACTER OVERLAID (2FFB):**

The IDS introduced by this character describes the abstract form of the ideograph with  $D_1$  and  $D_2$  overlaying each other.

*Add Table D.1 (see overleaf) after the preceding text.*

**Page 729, Annex E**

*After the entry* IDEOGRAPHIC DEPARTING TONE MARK *insert the following character name entries:*

2FF1	IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO BELOW
2FF3	IDEOGRAPHIC DESCRIPTION CHARACTER ABOVE TO MIDDLE AND BELOW
2FF4	IDEOGRAPHIC DESCRIPTION CHARACTER FULL SURROUND
2FF2	IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO MIDDLE AND RIGHT
2FF0	IDEOGRAPHIC DESCRIPTION CHARACTER LEFT TO RIGHT
2FFB	IDEOGRAPHIC DESCRIPTION CHARACTER OVERLAID
2FF5	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM ABOVE
2FF6	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM BELOW
2FF7	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LEFT
2FFA	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM LOWER LEFT
2FF8	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER LEFT
2FF9	IDEOGRAPHIC DESCRIPTION CHARACTER SURROUND FROM UPPER RIGHT

**Page 751, Annex L**

*After the entry for GB 2312-1980 insert new entry as follows.*

GBK (*Guo Biao Kuo*) Han character internal code extension specification: *Jishu Biaozhun Chubanshe* (Technical Standards Publishing)

Table D.1: Properties of ideographic description characters

Character Name: IDEOGRAPHIC DESCRIPTION CHARACTER ...	no. of DCs	IDS Acronym and Syntax	Relative positions of DCs	Example of IDS	IDS example represents:
LEFT TO RIGHT	2	IDC-LTR D <sub>1</sub> D <sub>2</sub>			𠄎
ABOVE TO BELOW	2	IDC-ATB D <sub>1</sub> D <sub>2</sub>			𠄑
LEFT TO MIDDLE AND RIGHT	3	IDC-LMR D <sub>1</sub> D <sub>2</sub> D <sub>3</sub>			𠄔
ABOVE TO MIDDLE AND BELOW	3	IDC-AMB D <sub>1</sub> D <sub>2</sub> D <sub>3</sub>			𠄗
FULL SURROUND	2	IDC-FSD D <sub>1</sub> D <sub>2</sub>			𠄚
SURROUND FROM ABOVE	2	IDC-SAV D <sub>1</sub> D <sub>2</sub>			𠄜
SURROUND FROM BELOW	2	IDC-SBL D <sub>1</sub> D <sub>2</sub>			𠄞
SURROUND FROM LEFT	2	IDC-SLT D <sub>1</sub> D <sub>2</sub>			𠄠
SURROUND FROM UPPER LEFT	2	IDC-SUL D <sub>1</sub> D <sub>2</sub>			𠄢
SURROUND FROM UPPER RIGHT	2	IDC-SUR D <sub>1</sub> D <sub>2</sub>			𠄤
SURROUND FROM LOWER LEFT	2	IDC-SLL D <sub>1</sub> D <sub>2</sub>			𠄧
OVERLAID	2	IDC-OVL D <sub>1</sub> D <sub>2</sub> *			𠄩

\* NOTE: D<sub>1</sub> and D<sub>2</sub> overlap each other. This diagram does not imply that D<sub>1</sub> is on the top left corner and D<sub>2</sub> is on the bottom right corner.

## G8 Explanatory Report

<b>EXPLANATORY REPORT</b>	<b>ISO/IEC 10646-1/FDAM 28</b>
ISO/IEC JTC 1/SC 2 N <b>3363</b>	
Will supersede: SC 2 N 3312	Secretariat: JAPAN (JISC)

This form should be sent to ITTF, together with the committee draft, by the secretariat of the joint technical committee or sub-committee concerned.

The accompanying document is submitted for circulation to member body vote as an FDIS, following consensus of the P-members of the committee obtained on:

1999-08-13

by postal ballot initiated on: 1999-04-07

P-members in favour: (22) Brazil; Canada; China; Denmark; Egypt; Finland; France; Germany; Greece; Ireland; Israel; Italy, Japan; Korea, Rep. of; Netherlands; Norway; Poland; Romania, Russian Federation; Sweden; UK; USA

P-members voting against: (0)

P-members abstaining: (1)Australia

P-members who did not vote (14): Armenia, Austria; Belgium; Iceland; India; Iran, Islamic Republic of; Morocco; Singapore; Slovenia; Thailand; Tunisia; Turkey; Viet Nam; Yugoslavia

### Remarks:

#### History

- Project subdivision - SC 2 Resolution M08.13 (SC 2 N 3077), JTC 1 endorsement: JTC 1 N 5481
- Combined PDAM registration and consideration - Letter ballot: SC 2 N 3186, Summary of voting: SC 2 N 3241, Disposition of comments report : SC 2 N 3282
- FPDAM - Letter ballot: SC 2 N 3312, Summary of voting: SC 2 N 3347, Disposition of Comments Report: SC 2 N 3362

On the recommendation of WG 2 (Res. M37.3 of the Copenhagen meeting, 1999-09-13/16), this document is submitted to ITTF for a two-month FDAM ballot.

Project: JTC 1.02.18.01.28

I hereby confirm that this draft meets the requirements of part 3 of the IEC/ISO Directives

Date: 1999-09-24

Name and signature of secretary:

Toshiko Kimura

Secretariat, ISO/IEC JTC 1/SC 2