

## Japanese Character Encoding on the Internet with JIS X 0213

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This document is a product of JCS (JIS Coded Character Set) Committee.

### Abstract

This memo describes six MIME charsets: ISO-2022-JP-3, ISO-2022-JP-3-plane1, Shift\_JISX0213, Shift\_JISX0213-plane1, EUC-JISX0213, EUC-JISX0213-plane1 for Japanese text encoding on the Internet with characters of ASCII, JIS X 0201, JIS X 0211, JIS X 0208 and JIS X 0213.

ISO-2022-JP-3 is the encoding for Japanese text and suitable for use in MIME. ISO-2022-JP-3-plane1 is a subset of ISO-2022-JP-3.

Shift\_JISX0213, Shift\_JISX0213-plane1, EUC-JISX0213 and EUC-JISX0213-plane1 are intended to be used internal to hosts or applications and not suitable for use in MIME.

## **1. Introduction**

JCS (JIS Coded Character Set) Committee has defined a new CCS (Coded Character Set), JIS X 0213 [[JISX0213](#)], which mostly is an extension of JIS X 0208 [[JISX0208](#)], to encode usual Japanese text.

JIS X 0213 has two planes, plane1 and plane2 and can be subsetted to use plane1 only.

To use characters of JIS X 0213, JCS committee defines 6 new charsets: ISO-2022-JP-3, ISO-2022-JP-3-plane1, Shift\_JISX0213, Shift\_JISX0213-plane1, EUC-JISX0213 and EUC-JISX0213-plane1 according to the guidelines of [BCP 19](#), [RFC 2278](#) [[BCP19](#)].

## **2. ISO-2022-JP-3**

ISO-2022-JP-3 consists of CCSes of ASCII [[ASCII](#)], JIS X 0208 [[JISX0208](#)] and JIS X 0213 [[JISX0213](#)].

The CES (Character Encoding Scheme) of ISO-2022-JP-3 uses escape sequences of ISO 2022 [[ISO2022](#)] and is like that of ISO-2022-JP [[RFC1463](#)].

The full specification of the CES of ISO-2022-JP-3 is given in Annex 2 of [[JISX0213](#)].

ISO-2022-JP-3 is suitable for use in MIME [[MIME1](#)].

MIBenum of ISO-2022-JP-3 is <to be assigned by IANA>.

## **3. ISO-2022-JP-3-plane1**

ISO-2022-JP-3-plane1 is identical to ISO-2022-JP-3, except that no characters of JIS X 0213 plane 2 can be used.

MIBenum of ISO-2022-JP-3-plane1 is <to be assigned by IANA>.

## **4. Shift\_JISX0213**

Shift\_JISX0213 consists of CCSes of JIS X 0201 [[JISX0201](#)], JIS X 0211 [[JISX0211](#)] and JIS X 0213.

The CES of Shift\_JISX0213 is like that of charset Shift\_JIS.

The full specification of the CES of Shift\_JISX0213 is given in Annex 1 of [[JISX0213](#)].

Shift\_JISX0213 is not suitable for use in MIME.

MIBenum of Shift\_JISX0213 is <to be assigned by IANA>.

#### **5. Shift\_JISX0213-plane1**

Shift\_JISX0213-plane1 is identical to Shift\_JISX0213, except that no characters of JIS X 0213 plane 2 can be used.

MIBenum of Shift\_JISX0213-plane1 is <to be assigned by IANA>.

#### **6. EUC-JISX0213**

EUC-JISX0213 consists of CCSes of ASCII, JIS X 0208, JIS X 0201 Kana and JIS X 0213.

The CES of EUC-JISX0213 is like that of charset EUC-JP.

The full specification of the CES of EUC-JISX0213 is given in Annex 3 of [[JISX0213](#)].

EUC-JISX0213 is not suitable for use in MIME.

MIBenum of EUC-JISX0213 is <to be assigned by IANA>.

#### **7. EUC-JISX0213-plane1**

EUC-JISX0213-plane1 is identical to EUC-JISX0213, except that no characters of JIS X 0213 plane 2 can be used.

MIBenum of EUC-JISX0213-plane1 is <to be assigned by IANA>.

#### **8. References**

[ASCII] American National Standards Institute, "Coded character set -- 7-bit American national standard code for information interchange", ANSI X3.4-1986.

[BCP19] N. Freed, J. Postel, "IANA Charset Registration Procedure", [RFC2278](#), January 1998.

[ISO2022] International Organization for Standardization (ISO), "Information processing -- ISO 7-bit and 8-bit coded character sets -- Code extension techniques", International Standard, Ref. No. ISO 2022-1986 (E).

[JISX0201] Japanese Industrial Standards Committee, "7-bit and 8-bit coded character sets for information interchange", JIS X 0201:1997, Japanese Standards Association, January 1997.

[JISX0208] Japanese Industrial Standards Committee, "7-bit and 8-bit double byte coded KANJI sets for information interchange", JIS X 0208:1997, Japanese Standards Association, January 1997.

[JISX0211] Japanese Industrial Standards Committee, "Control functions for coded character sets", JIS X 0211:1994, Japanese Standards Association, October 1994.

[JISX0213] Japanese Industrial Standards Committee, "7-bit and 8-bit double byte coded extended Kanji sets for information interchange", JIS X 0213:2000, Japanese Standards Association, (To be published in January 2000, draft accessible through <http://jcs.aa.tufs.ac.jp/>).

[MIME1] N. Freed, N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", [RFC 2045](#), November 1996.

[RFC1468] J. Murai, M. Crispin, E. van der Poel, "Japanese Character Encoding for Internet Messages", [RFC 1468](#), June 1993.

## **9. Security Considerations**

This memo defines MIME charsets, interpretation of which should result in text displayed without any side effects such as device control, which is believed to be unrelated to security issues.

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